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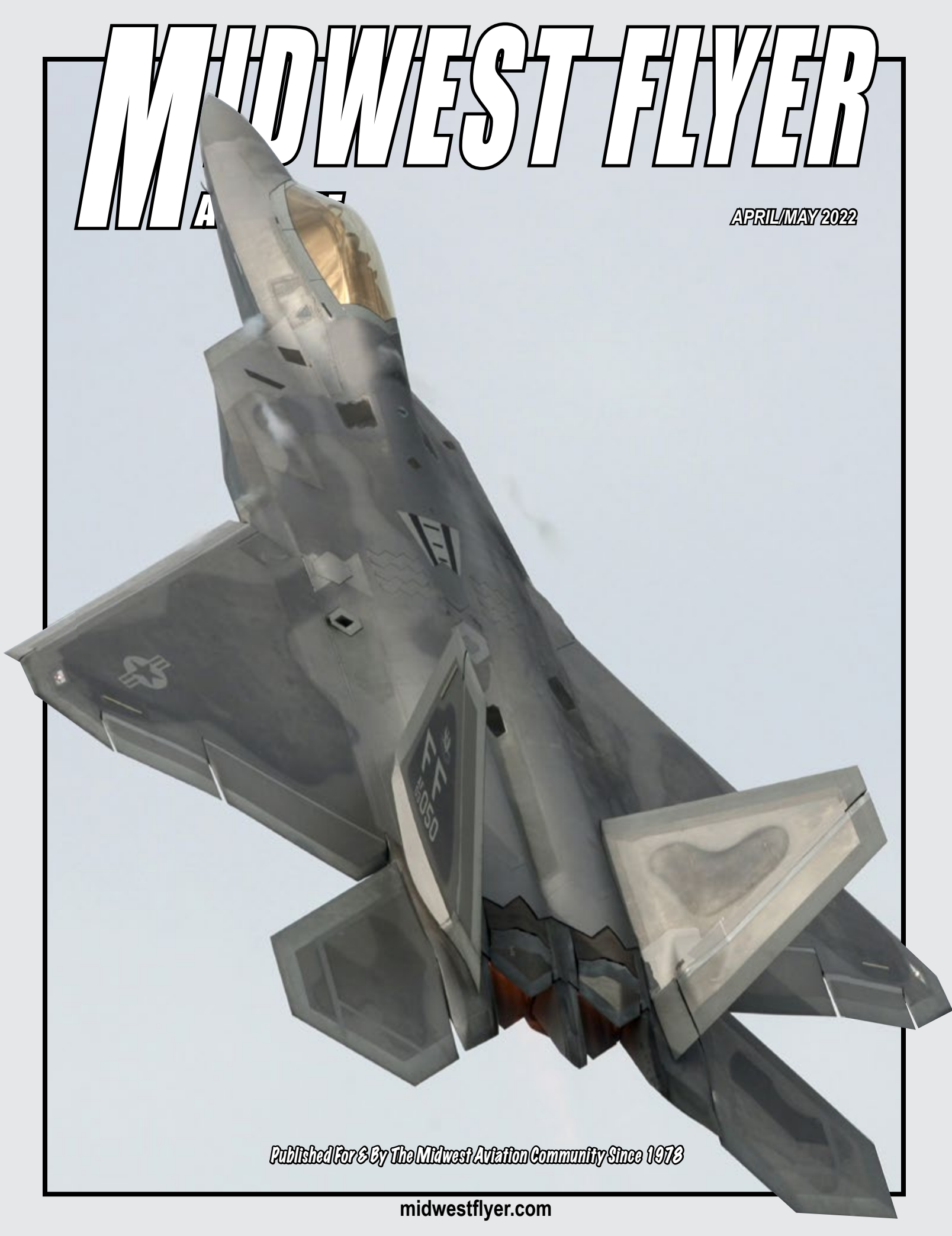
APRIL/MAY 2022



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Contents

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ON THE COVER: A U.S. Air Force F-22 Raptor goes vertical at EAA AirVenture Oshkosh 2008. A variety of current and vintage U.S. Air Force aircraft will be displayed and flying at EAA AirVenture 2022, July 25-31, to celebrate the 75th anniversary of the U.S. Air Force. This will be the 69th edition of the Experimental Aircraft Association fly-in convention, at Wittman Regional Airport in Oshkosh, Wisconsin. At press time, the F-22 was not yet confirmed for AirVenture, but regardless, the USAF will have an arsenal of aircraft on display and flying. *Chris Bildilli Photo*

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Aviation Leaders Deserving of Recognition

by Dave Weiman

In this issue, you will read articles recognizing the accomplishments of several aviation leaders who have recently retired. First, Randy Van Natta and Archie Becher have semi-retired and sold their engineering firm, Becher-Hoppe, to their employees. Second, my colleague, Tom Haines, has likewise decided to retire as Editor in Chief of *AOPA Pilot* magazine, along with Melissa Rudinger and Ron Golden, also of AOPA. Third, Michimasa Fujino, President, CEO and Founder of Honda Aircraft Company, has retired. I will miss working with these top-notch professionals and wish them well in retirement.

If these aviation leaders have not yet been inducted into their respective state aviation halls of fame, or named aviation persons of the year, they should be. But unfortunately, unless someone takes the time to nominate them, they could be passed up and forgotten.

State aviation halls of fame seek nominations, but they are not always on the lookout for deserving individuals and tend to wait for someone to nominate them. While the process of nominating individuals varies somewhat from state to state, it requires selflessness and a considerable amount of time on the part of the nominator. You must gather the information on the individual and solicit letters of support, and some states select nominees based more on the "quantity" of support letters, than on the "qualifications" of the individual, and standards are sometimes lowered.

To help ensure that only the most deserving individuals get nominated, I urge the selection committees not to wait for nominations to come in, but rather seek out and identify deserving candidates. And rather than lower the standards, state aviation associations (i.e., airports, pilots, fixed base operators) should consider creating an "Aviation Person of the Year Award" for those individuals who may have made a significant contribution to aviation, but who might not be deserving of hall of fame recognition. These awards can be presented at the annual state aviation conferences. ❑

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Index To Advertisers

The Address Airmen Give To The FAA Matters: Make Sure It Is Correct

by Gregory J. Reigel, Esq.

Greg Reigel

The FAA wants to be able to track you down. Why? Aside from the obvious compliance and enforcement reasons, the FAA also wants to keep airmen informed of seminars (e.g. Wings programs, etc.), to request input from airmen regarding local issues (e.g. airspace design, airport closure, etc.) and to provide airmen with any other aviation safety information it feels is beneficial or necessary. As usual, it accomplishes this goal through the Federal Aviation Regulations ("FARs").

The Regulation

FAR §61.60 requires that airmen keep the FAA informed of their permanent mailing address. (A similar regulation applying to airmen other than flight crewmembers is found at FAR §65.21.) Specifically, FAR §61.60 prohibits an airman from exercising the privileges of his or her certificates if the airman has failed to provide the FAA's Airman Certification Branch with a new permanent mailing address within 30 days of changing his or her permanent mailing address.

The change of permanent mailing address may be reported to the FAA via U.S. Mail or via the internet. If via mail, the notification must be sent to FAA, Airman Certification Branch, P.O. Box 25082, Oklahoma City, OK 73125. If via internet, airmen should go to the FAA's website here, where a form may be completed to notify the FAA of a change in permanent mailing address.

When an airman cannot provide a permanent residence address (e.g. where the person resides in a motor home or is in the process of moving), it is permissible for the airman to use his or her parent's or friend's permanent address as the airman's permanent address. This is frequently the case with newly hired airline pilots who are domiciled out of a different city from the city in which they will ultimately reside when they acquire enough seniority to hold the appropriate schedule.

Some airmen attempt to simplify compliance with this regulation by disclosing a post office box as the permanent mailing address. That way, so the argument goes, the airman can move as much as he or she wants without having to provide notice to the FAA with each move. This is a nice idea, in theory. Unfortunately, the regulation accounts for this scenario and requires the airman to also provide his or her current residential address if a post office box is disclosed as the permanent mailing address.

FAR §61.60 does not specifically ask for your "residence" or where you live, except when you are using a post office box for a permanent mailing address. Also, the regulations do not define "permanent mailing address," or "residential address" for that matter. However, the reasonable implication of FAR §61.60's requirement is that the FAA wants an address where it knows that information mailed by it to that address will be received by the airman. For most airmen, this address is where they live.

Consequences of Non-Compliance

A failure to comply with FAR §61.60 usually presents in one of two situations. First, the issue may come to light during the course of a ramp check or check-ride conducted by an FAA inspector/examiner when he or she compares the addresses on an individual's airman and medical certificates and the driver's license or other government identification, which airmen are required to carry when flying. Inconsistent addresses on the documents may lead an FAA inspector to confirm the address on file with the FAA to determine which address was current and whether it matched the FAA's records. If the airman's current permanent mailing address does not match the FAA's records, the airman is technically in violation of FAR §61.60.

However, it is unclear what sanction the FAA may seek to impose for a violation of FAR §61.60, if any. A review of the Sanction Guidance Table in FAA Order 2150.3C does not disclose a specific reference to FAR §61.60. Further, a quick search of National Transportation Safety Board ("NTSB") reported cases does not reveal any reported cases in which the FAA has pursued enforcement action against an airman for violation of FAR §61.60.

This isn't to say that the FAA will not or cannot pursue enforcement action for a violation of FAR §61.60. It simply means that if the FAA pursued an action, we don't have any clear guidance as to what sanction the FAA would seek to impose. Depending upon the circumstances, the sanction sought could be anywhere from a minimal suspension, up to revocation.

Second, the consequences of violating FAR §61.60 often appear in enforcement actions arising from unrelated FAR violations. Many airmen have suffered suspensions and revocations for unrelated FAR violations without the benefit of a hearing or appeal as a direct result of their failure to comply with FAR §61.60. How does this happen?

Well, in order to initiate an enforcement action against an airman, the FAA must serve the airman with a "notice of proposed certificate action" ("NPCA") or "notice of proposed civil penalty" ("NPCP"). This NPCA/NPCP offers an airman several alternatives for responding to the NPCA/NPCP and the airman must choose and pursue one of the alternatives within 20 days. If the FAA does not receive a timely response from the airman (in this case because the airman was unaware of the NPCA/NPCP because it went to the airman's address of record with the FAA which was no longer current), then the FAA will simply issue an order imposing the sanction sought in the NPCA/NPCP.

When the FAA mails an order of suspension, revocation, or civil penalty to an airman via certified mail, service is effective on the date of the mailing. An airman must appeal an order within a specified period of time (20 days for a non-emergency order and 10 days for an emergency order or 2 days for appeal of an emergency determination), otherwise the order becomes final and un-appealable. (Of course, if the airman did not receive the NPCA/NPCP because of the incorrect address, more often than not the airman will not

receive the order either.)

If an airman later learns of the FAA's order and attempts to appeal the order, unless unusual circumstances are present, the airman's appeal will likely be denied. NTSB precedent holds that when the FAA mails the order to the airman's permanent address on file with the Airman Certification Branch, the use of such address constitutes constructive notice. As a result, if the FAA has provided constructive notice to an airman, the NTSB deems that the airman has received notice, whether the airman has actually received the NPCA/NPCP/order or not.

If the airman failed to keep the FAA informed of a change of his or her permanent mailing address, the airman will not be able to argue on appeal that he or she never received proper service. According to the NTSB, "[c]ertificate holders must ensure that they keep their official records, to include a permanent address of record at which they may receive official correspondence regarding their certificates, current."

Further, failure to receive an order that was sent to the most current permanent mailing address contained in the FAA's record, does not constitute "good cause" that would excuse the untimely filing of an appeal. The NTSB has rejected, and continues to reject, arguments of "good cause" based upon an airman's failure to receive the mail when his or her permanent mailing address differs from the one contained in the FAA's records.

The FAA and NTSB expect that the airman will check that address for FAA mail, especially if the airman was on notice of an investigation or aware that a NPCA could be sent. Airmen need to take steps to ensure that they are promptly notified of any mail from the FAA. If an airman is unable to check the mail regularly, the airman should have someone he or she trusts check it for the airman.

Conclusion

Like it or not, airmen need to make sure the FAA knows where it can reach them. Not only does FAR §61.60 require it, but it also makes good sense. The FAA does, on occasion, send airmen aviation safety information that is beneficial and unrelated to compliance and enforcement. And, if you are involved in an enforcement investigation, you probably want to make sure that the FAA sends things to an address where you know you will receive them so you can preserve your rights and respond in a timely manner. After all, if the FAA wants to pursue an action against you and it uses the current address it has in its records, it can do so whether you actually receive its order or not.

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Age-Related Macular Degeneration

by Dr. Bill Blank, MD

Dr. Bill Blank

Age-Related Macular Degeneration (ARMD) is a major cause of visual loss. It affects approximately 11 million Americans. Its incidence gradually increases with age to 12% in people 80 and older. The macula is the central 2% of the retina. Whenever we look directly at something, we are using our macula. It gives us sharp, central vison for fine detail, color, and contrast. We need a healthy macula to be able to read. ARMD only affects central vision. Peripheral, or side vision is preserved. People with severe ARMD can be legally blind, but will be able to function at a reduced level because their peripheral vision is normal. They will never progress to being unable to detect light.

There are 2 forms of ARMD, dry and wet. The dry is much more common, 90% of the cases. The dry form leads to a slow deterioration of the retinal cells, the cones, of the macula with a gradual deterioration of central vision. The wet form is caused by the growth of tiny new blood vessels (neovascularization) into the macula from behind. These blood vessels tend to leak fluid and blood into the macula, leading to serious distortion and loss of central vision. This growth can occur quickly.

Symptoms of ARMD are related to the functions performed by the macula. They include blurred vision, central vision impairment, visual distortion, poor vision in low light, loss of contrast sensitivity and alterations in color vision perception. Progression can be slow and insidious with the dry form and quite rapid, a few hours to a few days, with the wet form. Risk factors include age, heredity, SMOKING, high blood pressure, hardening of the arteries and obesity. Exposure to ultraviolet light may also be a factor. You can see by looking through this list what you can do to decrease your likelihood of developing ARMD or decreasing its severity.

What treatments are available? Dry ARMD is essentially a result of aging. We are trying to slow down aging. Several years ago, the National Eye Institute did two studies called AREDS 1 and 2 for Age Related Eye Disease Studies. The purpose was to determine if preventative treatment with various antioxidant vitamins, minerals, and dietary supplements would be helpful. The studies showed that under limited circumstances, these supplements slowed progression to severe disease in some cases. These supplements are available over the counter under the names AREDS 1 and AREDS 2. AREDS 2 is for smokers. They should not take AREDS 1. The FAA permits these supplements.

Wet ARMD is thought to be caused by something called Vascular Endothelial Growth Factor (VEGF). The goal is to inactivate it. This is done with intraocular (inside of the eye) injections into the vitreous of anti-VEGF medications and steroids. This is done as an outpatient. The frequency of injections depends upon the response. They are particularly helpful in stabilizing the condition.

Will the FAA certify anyone with ARMD? Yes, sometimes. An AME must defer anyone with significant dry or wet ARMD. The FAA will require a Special Issuance for anyone whose ARMD is beyond the early, mild stage. A complete ophthalmological exam will be required. Specific tests will be needed. Intraocular (intra vitreal) injections are approved. There is a 24-hour no fly period after the injection. With close monitoring, these injections have permitted pilots to continue to fly in spite of the disease and enjoy useful vision. In all cases, the airman must meet the visual standards for the class of medical certificate desired. 20/40 for distance and near, best corrected, or uncorrected in each eye is required for Third Class. First and Second Class need 20/20 for distance and 20/40 for near and sometimes for intermediate distances. Again, this apples to each eye. The frequency of follow-up for continued Special Issuance depends upon the individual case. I hope that none of you develop ARMD, but if so, there is hope.

Happy flying!

EDITOR'S NOTE: Columnist William A. Blank is a physician in La Crosse, Wisconsin, and has been an Aviation Medical Examiner (AME) since 1978, and a Senior AME since 1985. Dr. Blank is a retired Ophthalmologist, but still gives some of the ophthalmology lectures at AME renewal seminars. Flying-wise, Dr. Blank holds an Airline Transport Pilot Certificate and has 5600 hours. He is a Certified Instrument Flight Instructor (CFII) and has given over 1200 hours of aerobatic instruction. In addition, Dr. Blank was an airshow performer through the 2014 season and has held a Statement of Aerobatic Competency (SAC) since 1987.

DISCLAIMER: The information contained in this column is the expressed opinion of the author only, and readers are advised to seek the advice of others and refer to the Federal Aviation Regulations and FAA Aeronautical Information Manual for additional information and clarification. ❑

When Was The Last Time You Flew An ILS Approach?

by Michael J. "Mick" Kaufman

Michael Kaufman

As our avionics continue to improve, many pilots have panel updates scheduled or in progress, and in some cases, these panel updates cost more than the airplane cost when it was originally purchased. Among the updates are Global Position Satellite (GPS) instruments. And as a result, many of us have not flown an Instrument Landing System (ILS) approach in quite some time, because GPS approaches are much easier, as are transitions navigating from GPS en route, to a GPS approach.

I have been doing ILS approaches since I earned my instrument rating almost five decades ago, but they do have several shortcomings. The ground equipment for the ILS is very expensive for the FAA to install and maintain, while the equipment we need in our airplanes to successfully fly an ILS approach can now be purchased for under $1,000. Because the ILS ground equipment is so expensive from the government side, you'll only find it at major airports and only for one or two runways. The major benefit of an ILS approach over a GPS approach are the lower "minimums." As far as I know, there are no GPS approaches that have lower minimums than ILS approaches. And "zero-zero" ILS approaches require additional equipment and special pilot training.

To fly an ILS approach, we need an ILS receiver, which is usually part of old VOR and glideslope receivers. A new $70,000.00 panel upgrade will not do a better ILS approach than an old King KX-170 did five decades ago.

As pilots we need to know that there are a few shortcomings to both the ILS approach and GPS approach.

Some 20-plus years ago, I was returning from Florida in my Bonanza and checked the weather for my home airport at the time, Tri-County Regional in Lone Rock, Wisconsin (KLNR) and it was not good. The only approach available at that time was a VOR-A approach with high minimums. So, I decided to divert to Dubuque, Iowa (KDBQ) for the ILS 31, but that airport also had low Instrument Meteorological Conditions (IMC).

I was being vectored for the approach by Chicago Center as there is no approach control at Dubuque. I checked the Automatic Terminal Information Service (ATIS) and set my altimeter to 29.62 inches, then intercepted the localizer on a vector. The glideslope came alive, and I was on the approach. I always check my altimeter when crossing the final approach fix (FAF) against the published altitude on the approach plate. If this is not one of your procedures when flying an ILS or GPS approach, you could be a candidate for disaster. As I crossed the FAF on the glideslope, I realized I was some 360 feet below the published crossing altitude shown on the approach chart. Not good! Now on the tower frequency with a cleared-to-land clearance, I immediately declared a missed approach.

I then asked the tower for the current altimeter setting and was given 29.26. I must have set the wrong altimeter setting. I was switched back to Chicago Center and was given vectors for another approach. This time, everything checked out crossing the FAF, and I landed without further incident. I taxied to the ramp, turned off my avionics, and shut down the engine, but something bothered me… How could I have made such an important mistake? I decided to turn the radios back on and listen to ATIS again. What I found out was when the controller made the ATIS tape, he transposed the altimeter setting from 29.26 to 29.62. I called the tower and asked them to listen to the ATIS tape, which they did, and the controller acknowledged his error. If I had followed the glideslope correctly to published minimums without seeing anything, I would have been 160 feet lower than I thought I was – lesson learned!

Several years later while training a pilot for an instrument rating doing the same approach at the same airport, a similar situation occurred, but in VFR conditions. Again, I called the tower for an altimeter setting, but this time it matched what was reported on ATIS, so we landed. I figured it was another similar error, but after landing, the altimeter matched the touch down zone elevation. How can this be? So, I called the avionics shop, and they had us bring the airplane to the shop. The glideslope was out of calibration, so it was recalibrated, and everything worked correctly.

Every two years we have a pitot static, altimeter and transponder check done on our airplanes. When flying IFR using VOR for navigation, we as pilots must do a VOR check and log it in the aircraft records, but nothing is said about the localizer or glideslope. I learned that the localizer and VOR use different electronic circuits, and the VOR check means nothing to the localizer.

FIG 1 & 2

When we look at some of the differences between ILS and RNAV/GPS approaches, we need to be aware of the accuracy of the approach. To the surprise of many of you, the ILS approach, which has been around for about 75 years, is still the winner. We have implemented WAAS which has greatly improved the accuracy of GPS approaches, but it still cannot be as accurate as the ILS approach. This is due to the weather conditions, such as temperature and humidity that affect the radio signals from the GPS satellite. You may see notes on approach plates **(FIG 1 & 2)** that tell us the VASI may not align with the approach course, or the approach cannot be done if the temperature does not fall between the guidelines needed for obstacle clearance. As depicted, we can see a description of the two services, though both will provide an obstacle clear path to the runway.

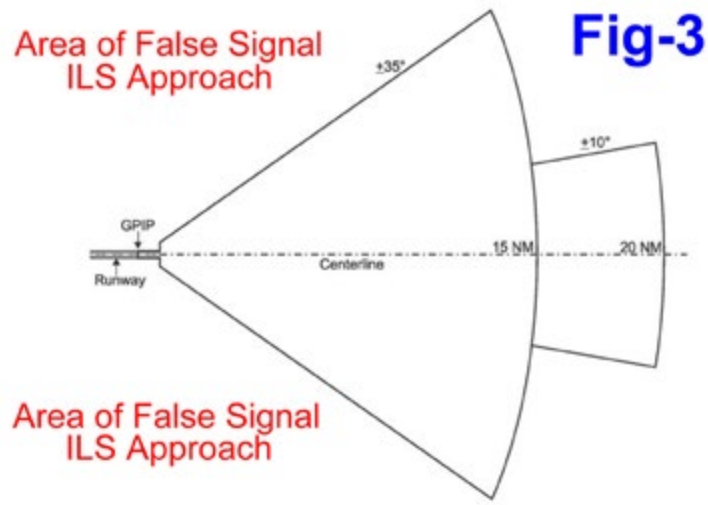
A ***precision approach*** is an instrument approach based on a navigation system that provides course guidance and glidepath deviation meeting the precision standards of the International Civil Aviation Organization (ICAO) Annex 10. For example, PAR, ILS and GLS.

An approach with vertical guidance (APV) is an instrument approach based on a navigation system that is not required to meet the precision approach standards of ICAO Annex 10 but provides course and glidepath deviation information. For example, Lateral Navigation and Vertical Navigation (LNAV/VNAV) and Localizer Performance with Vertical Guidance (LPV) are APV approaches.

When we fly the ILS approach today, it is the same as we did it 50 years ago; the difference being how we get established on the approach. We do not need to have a GPS in the airplane to fly an ILS approach, as we did not have GPS when the ILS was first developed. Once established on the inbound course, we fly using the localizer and glideslope, and from a previous article, if we are hand-flying the approach, we learn to dance on the controls to keep those needles centered, especially in turbulent air.

When we are being radar vectored for the approach, GPS is not needed, and it might be better not to use any GPS for reference. I will explain later.

During the radar vector, the controller will specify, or should specify, that this is a "vector for the approach" and will specify the runway on the first vector the controller gives you. The last vector will include an altitude and heading until established, along with the approach, again for pilot verification. This requires a total readback from the pilot… heading until established, altitude and the name of the approach.



When we are going to be flying an ILS approach with radar vectors and without using GPS assist, there are some "gotchas" to remember.

Before GPS, I had a lot of fun with instrument students on this type of approach. There are false signals from the localizer and glideslope that will trick the pilot into thinking they are on the proper signal **(FIG 3)**, so you must fly to the Initial Approach Fix (IAF) and positively identify it, then fly the charted approach as depicted on the approach chart. If you are using GPS assist and flying the full approach with a course reversal, you will not even be aware of these false signals because you are in GPS mode on your navigator.

It is important when either loading the approach or activating the approach the first time, to make sure you load the "ILS frequency" from the standby window to the active window on the navigator.

I recommend that pilots go to settings on their navigator while on the ground and select the option to manually switch from GPS mode to VLOC mode for ILS approaches. The GPS does a much better job of getting the airplane correctly established on the inbound course, as the "auto switch" occurs once inbound on the procedure turn. Autopilots flying roll steering (GPSS) do a much better job getting established on the inbound course than trying to capture a localizer signal in VLOC mode.

The last configuration on flying an ILS approach, which I mentioned earlier in this article, is using GPS assist when getting radar vectors and why this could fool you if you are unaware of how it works.

You have been told by air traffic control (ATC) that you are getting radar vectors for the ILS approach, so you load the approach, put the ILS frequency in the active window and then select "vectors to final" on your GPS navigator. ATC starts vectoring you and suddenly you notice that your navigator shows "suspend," kind of like when in a holding pattern. This does not always happen as it depends on where you are in relation to the inbound approach course. As you follow the vectors from ATC, you notice the navigator is still in suspend and you know that pushing the OBS button takes you out of suspend. It is tempting to push that button, **but don't do it**, as it will come out of suspend automatically at the proper time. Pushing the OBS button will cause the box to sequence to the next waypoint and this would be bad.

Remember, when using the GPS navigator on vectors to final, there will be no magenta line to follow until on the inbound approach course.

In conclusion, go ahead and fly the ILS approach when offered to help you stay current. Better yet, practice with a safety pilot or instructor before you tackle it in IMC. It is not difficult to do, though there are a few more steps involved than sitting back and just watching the airplane fly the GPS approach with no pilot input.

Stay safe and train often with an experienced instructor.

EDITOR'S NOTE: Michael J. "Mick" Kaufman is a Certified Instrument Flight Instructor (CFII) and the program manager of flight operations with the "Bonanza/Baron Pilot Training" organization. He conducts pilot clinics and specialized instruction throughout the U.S. in many makes and models of aircraft, which are equipped with a variety of avionics. Mick is based in Richland Center (93C) and Eagle River, Wisconsin (KEGV). He was named "FAA's Safety Team Representative of the Year" for Wisconsin in 2008. Readers are encouraged to email questions to **captmick@me.com** or call **817-988-0174**.

Spring Hazards, From Bugs & Birds, To Old Liens

by Pete Schoeninger

Pete Schoeninger

Q) A friend has offered to sell me his airplane at what I consider a fair price. He did mention that there is an old lien from a bank that went out of business 20-plus years ago, and that he was sure there would never be any repossession action. Should I buy it?

A) Not immediately! Don't buy it until, and unless, you can get a clear title search from a title company or attorney. That snag on the title will be a significant hinderance when the time comes for you (or your estate) to sell the airplane, even if no repo company ever chases you. Sometimes, but not always, a title company or an aviation attorney can get a title cleared for you for a modest fee. Two good aviation attorneys who are contributing editors to *Midwest Flyer Magazine* are Greg Reigel and Ed Leineweber. Give Greg a call at 214-780-1482 or email greigel@shackelford.law, and Ed at 608-604-6515 or email eleineweber@leineweberlaw.com.

Q) I heard the original Piper PA-32 Cherokee SIX could legally carry seven (7) people, but the newer PA-32 models, Lance and Saratoga, cannot. Is that true?

A) The Cherokee SIX 260 and 300 models, and the Lance, can legally carry seven (7) people **IF** equipped with bench seats and **IF** weight and CG limitations are observed. Three people (none with big butts) sit in the middle bench seat, two passengers in the rear seats, and two up front. To the best of my knowledge none of the versions of the Saratoga had bench seats, so max people capacity is six (6) people. Note the Cherokee SIX was the father of the Lance, and the grandpa of the Saratoga. Whatever you do, when in doubt, never take a chance. It's always best to be conservative when people's lives are at stake.

Q) A trivial Cherokee SIX question. A friend said a very few early Cherokee SIX airplanes had fixed-pitch props. Is that true?

A) Yes, but their performance was not good. Constant speed props were a much better choice. I don't recall ever seeing a Cherokee SIX with a fixed-pitch prop. Answers to these and other questions can be found online by searching PA 32 Type certificate and look at the FAA information that comes up and go to the end of the information and read "notes."

Q) What preparation for tailwheel transition, if any, can I do in flying my Piper Archer?

A) Do your best to touch down on landing with NO drift, and with the longitudinal axis of your airplane exactly in line with the runway. Being able to do these two things will make tailwheel transition easier for you.

Q) Can you recommend any internet sites for armchair viewing?

A) I have enjoyed and frequently view the following sites: AOPA Air Safety Institute; Dan Gryder, search Probable Cause: Dan Gryder; Scott Perdue, search Flywire - Scott Perdue; Juan Browne, search Juan Browne Blancolirio.

Q) I've been looking for an older used four-place simple airplane, looking mostly at old C-172s and a few Cherokees. While on vacation far from home I came upon a Stinson with a Franklin engine for sale. The owner took me for a ride. That airplane has lots of room and is attractively priced. Should I consider it?

A) A major consideration if buying any airplane that is not brand B, C, or P, is, do you have a local or nearby mechanic familiar with them? If your local mechanic happens to be familiar with Franklin engines and Stinsons, it could be a serious consideration for you. (Remember, you will need a tailwheel endorsement if you do not already have one.) But if your local or nearby mechanics are not familiar with Stinsons, or whatever somewhat unusual airplane you are considering, it would be hard to go wrong buying a Cessna 172 or Piper Cherokee.

Q) Last summer, a friend had his J-3 Cub painted by a "shade tree" mechanic for a thousand bucks, cash! He calls it a "Hundred Foot paint job" because it looks OK from a distance only. The mechanic used school bus yellow equipment enamel, and just washed the airplane, then scuffed it very lightly, then painted it with two coats of that cheap yellow paint, using about 3 gallons. Then the owner flew it home and did the masking for the N numbers and lightning stripe that almost all J-3 Cubs have. Is that possible, or legal?

A) Yes, possible, but NOT recommended, and probably illegal. Most paint applications now require a properly vented spray booth, the FAA will recommend controls removed and balanced, logbook entries, etc. In short, don't do it. But here's a major FAA violation… If your friend flew the airplane home with no N number on it, that's a big no no.

Q) I think you have answered this before, but how can I find ownership history of my recently acquired 1962 Piper Comanche?

A) Do an internet search for "FAA CD." You can buy a CD from the feds for about $10.00 that will show chain of ownership since manufacture, as well as maintenance highlights.

Q) What kind of ground hazards should I watch out for

this spring?

A) Different hazards to be aware of include insects plugging your pitot system, birds building nests in your engine cowling or tail area, soft/wet fields, and gusty winds when you are parked outside. Spring gusts can blow an untied airplane around on a ramp, so tie it down before leaving it parked!

Q) And how do I detect insects and birds?

A) For insects in your pitot system, as you start your take-off run from experience you know about when your airspeed indicator should come alive. If at that point you see no motion on your airspeed indicator, you might want to abort the take-off and investigate. Birds building nests will sometimes drop a few pieces of grass and poop as they enter your airplane.

Q) You told my friend when taking a neighbor for a ride over their house, try and do it toward evening. Why then?

A) Air is usually smoother mornings and evenings, than mid-day. Early morning flyovers might upset some neighbors, so I suggest evening flights are a good idea. Another good idea is to have your friend's neighbor tell his neighbors to watch for them, rather than be surprised.

Q) What's the best way to get good publicity for our local airport and its businesses?

A) Invite the public to come out to your airport by offering discounted rides and introductory flights, and sunset flights on the slowest day of the week (Monday?). Of course, fly-in breakfasts are always well received by the public or offer families the opportunity to seat in an airplane and tour maintenance shops, offices, and hangars.

Q) I am going to have to spend about $7,000 at my annual inspection on my 172M for propeller replacement (mine won't pass overhaul inspection,) and a new alternator, and battery. How much if any will these changes affect the value of my airplane?

A) Sorry to tell you, the items you mentioned add almost nothing to value. They are maintenance items needed to be changed occasionally to keep the airplane in airworthy condition. Cosmetic items like new paint and interior, and avionics upgrades, will increase your airplane's value somewhat, but not as much as they cost.

Q) How does the American Champion Scout compare to the Aviat Husky?

A) Salesmen for either will claim a better airplane. Overall, they are pretty similar – well-built, two-seat, fabric-covered, strong utility aircraft suitable for off-airport operations,

available with 180 to 210 hp Lycoming engines. The Husky is built to newer FAR 23 standards, and the Scout has lineage back to the old Aeronca Champion (although there are huge differences). Both have good factory support. The Scout offers a lower retail price, and more fuel capacity. If you're in the market for a rugged utility airplane, take a good look at both of them, then contact an owner or two of each for their feedback. You can't go wrong with either. Huskys are made in Afton, Wyoming, and Scouts are made in Rochester, Wisconsin.

Q) Recently, I landed for the first time at a big airport with my flight instructor. (I am a new private pilot). On final approach, the tower switched runways on us, and we had to land on the huge runway airliners normally land on. We arrived okay, but with a good hard thud because I had a difficult time with depth perception. Any ideas on how to better gauge depth perception in this situation? Any tips?

A) This problem (depth perception on a big area) can occur on wide paved runways and is more frequently a problem on wide grass or snow-covered runways or when landing on lakes. What some pilots do is to make their last few feet of descent at a very gradual rate, and slightly nose high. You won't know exactly when you are going to touch down until you do. This technique is very frequently used by seaplane pilots landing on smooth water.

Q) Of the three most popular "classics" (i.e. Piper J-3 Cub, Aeronca 7AC Champ, and Taylorcraft BC 12D), people tell me the Cub is significantly slower. Is this true? If so, why?

A) Yes, it is true. As I recollect from yesteryear flying those airplanes, a Cub will cruise at about 70 mph, a Champ at about 80 mph, and a Taylorcraft at about 90 mph, all with 65 hp engines. The Cub has two big drag makers; the others do not. The first is obvious – the eyebrow cowlings that stick out in the breeze and deflect cooling air over cylinders. The second is the big shock absorber system Cubs have that sit outside the cabin in the slipstream.

Q) A friend told me that there is a great book by a Cessna engineer about the development of various Cessna models from 1950 to 1985, but it is expensive. Do you know what he is talking about?

A) I suspect that's *CESSNA WINGS FOR THE WORLD* by Bill Thompson. It is an excellent book detailing single model introductions, and subtle improvements. The author also includes a few funny flight test stories. If you have interest in Cessnas of that vintage, I highly recommend this book. Expect to spend around $100 for it in paperback. Expensive, yes, but the knowledge is priceless. (I bought my copy for 20 bucks 25 years ago!)

Q) To settle a bet, could you affirm my belief that the Cessna 175 was Cessna's most quiet single-engine airplane? If you know anything about them, how about a brief description.

A) Yes, you are correct according to Bill Thompson, because the prop turned relatively slow, reducing prop noise. (See previous question.) The 175 was a unique airplane, powered by a souped-up Continental 0-300 engine. The engine normally produced 145 hp and was also installed in early 172s. Cessna and Continental got 175 hp out of that engine by upping the redline RPMs by about 500 to over 3200, but with the prop geared down to around 2400 rpms. Engine TBO was only 1200 hours. Many of the remaining model 175s have had engine changes, most to the 180 hp Lycoming, which improves reliability, increases TBO, and increases performance over the original 175 hp model. About 2,000 were built from 1958 to 1962, and available on wheels with options to install floats or skis. I did own one (with a new 180 hp conversion)…paid $10,000 in 1982. I should have kept it!

Q) Any comments on the rapid rise in prices of some used airplanes? Will it continue with the possible re-emergence of Covid?

A) If you own an airplane which has appreciated rapidly, you might want to call your insurance agent and consider raising hull value coverage. You don't want to have a total loss (totaled) on your airplane (to say $100,000), only to find out that the settlement you receive from your insurance company will not come close to paying for a similar airplane, now for sale at perhaps $125,000. On the future direction of used airplane prices, I think in normal times prices would continue to rise given the very small number and high prices of new airplanes made. But I am not sure we are in for normal times, so I won't hazard a guess on price direction. Old age, and too many wrong guesses about airplane price trends in my previous life, have turned me into a Wisconsin Chicken!

Q) I learned to fly in a 1970 Cessna 150. The fuel system was stone simple… it was either on, or off. Now I am checking out in a 1980 Cessna 172. It has a 4-position fuel valve, both on, both off, or left or right. What should I know about this?

A) When you position the fuel valve in that C172 to both, fuel can flow freely between the two main tanks like your Cessna 150. This is the most common fuel position to use. When parked, fuel will flow thru the fuel selector if in both position until the tanks are roughly even. If you park the airplane on uneven ground, fuel may flow from the higher tank to the lower tank, causing the lower tank to vent fuel overboard. In the new generation C172s, the checklist recommends placing the fuel selector away from both when parking the airplane and I think that's a good idea to do in older Cessna 172s as well.

An incident I am aware of occurred when a fuel cap was not placed on the right tank of a Cessna. Most of the fuel vented overboard in flight, and as the fuel in the right tank lowered quickly, fuel in the fuller left tank flowed into the

right tank, only to be sucked overboard as well. This happened on a flight of about an hour, and most of the 80 gallons or so onboard were gone. Had the pilot selected one tank, rather than both, the fuel in the left tank would not have flowed in the right tank.

Q) As a follow-up question, what airplanes have fuel quirks to know about?

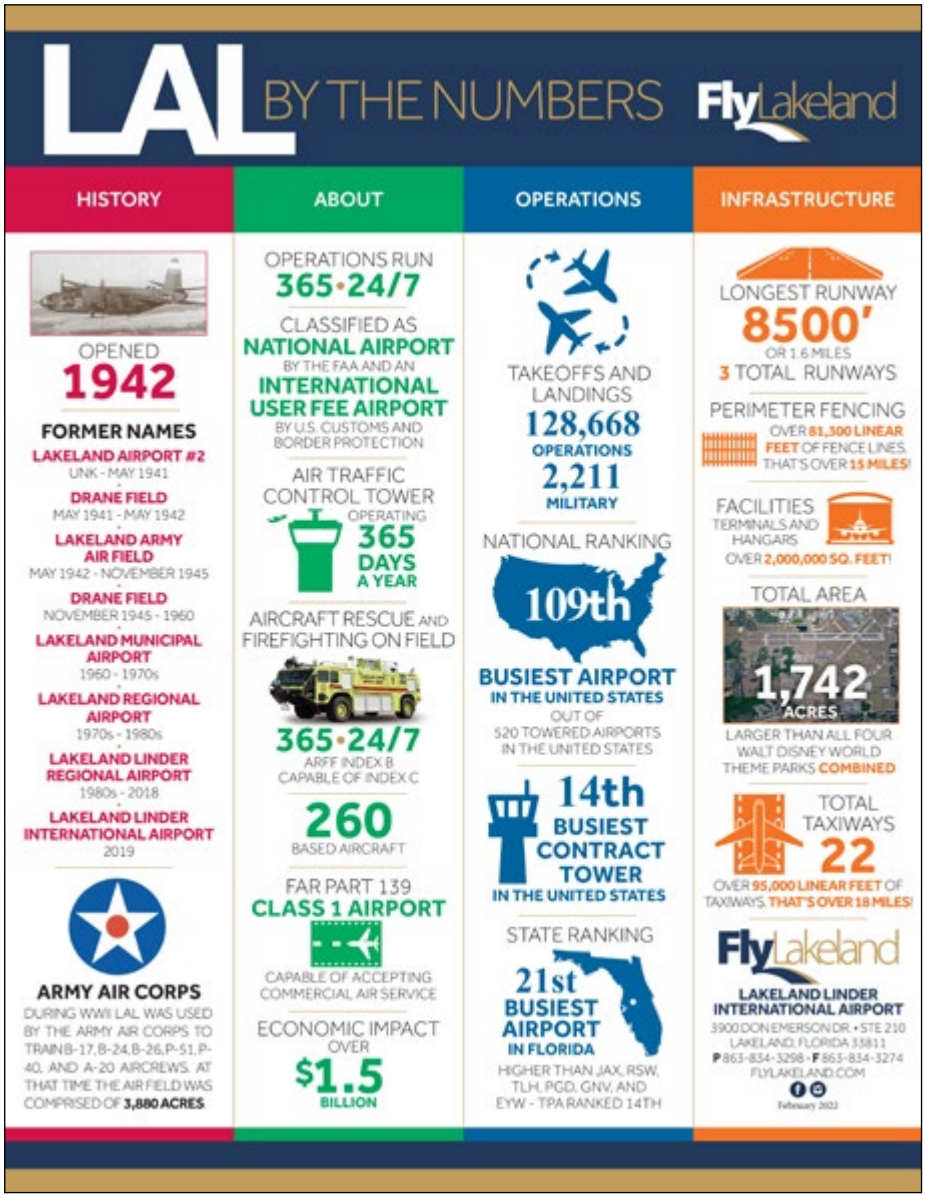
A) Many do, and a pilot must know and understand them all to be safe. A couple of odd ducks: the old two-place Swift had two wing tanks, but only one filler tube, and it was easy to think you had completely fueled the airplane when the "other" tank still was not full. Some Bonanzas are placarded against taking off when there is minimum fuel in the selected tank. Some old Cessna 172s needed to be switched to a single tank upon reaching 5,000 feet. On Citabrias, the low point in the fuel system, which you should sample before flight, is on the bottom of the fuselage well behind the landing gear.

Q) A friend has a Bonanza and is going to put a turbine engine in it. What will he gain by doing so besides a big hole in his wallet?

A) Several things… For some, it is the "Machismo" sound of a turbine starting that will get all the airport bums to look at him. Performance-wise, the turbine engine with 100-150 more horsepower will provide a shorter takeoff roll and a stronger rate of climb than the piston engine it replaced. The airplane will be a little lighter because the turbine engine is lighter than the piston engine it replaces (that's why the turbine engine must be mounted further ahead of the firewall) which allows a little more useful load. But there is no free lunch, as that turbine engine will suck lots more fuel per hour than the piston engine it replaces. So, in some situations, your actual range with reserve will be less with the turbine engine. To get good fuel economy in a turbine engine, you should get pretty high, which requires an oxygen mask, which many pilots and passengers don't like. Some issues to be aware of with the turbine… It has happened that they are mis-fueled with aviation gasoline rather than the required jet fuel. Something else to be aware of is that at many smaller general aviation airports, mechanics will be familiar with the Bonanza airframe, but not the turbine engine if/when maintenance is needed.

EDITOR'S NOTE: Pete Schoeninger is a 40-year general aviation veteran, starting out as a line technician as a teenager, advancing through the ranks to become the co-owner and manager of a fixed base operation, and manager of an airport in a major metropolitan community. He welcomes questions and comments via email at **PeterSchoeningerLLC@gmail.com**.

DISCLAIMER: The information contained in this column is the expressed opinion of the author only, and readers are advised to seek the advice of others, and refer to aircraft owner manuals, manufacturer recommendations, the Federal Aviation Regulations, FAA Aeronautical Information Manual and instructional materials for guidance on aeronautical matters. ❑



What Is The Value of Your Local Airport?

by Bob Worthington

Bob Worthington

Most non-aviation people view airports as being in two distinct different versions. Those which service the airlines and the much smaller county or municipal airports without commercial air service.

Many airports do not have a control tower. The larger airports with commercial air service are seen as necessities, because so many people fly today. The smaller airports are typically seen as noisy, catering only to local "rich guys" and their expensive toys. Few citizens realize how important their local airport is to the economy and wellbeing of the community it serves.

As too often happens, a local resident where I live (southern New Mexico) voiced his opinion (which was negative) decrying that our airport might grow because the city wants to provide commercial air service, turning it into "a noise-producing bane." He called those who support our city's general aviation airport a "miniscule-miniscule statistically insignificant number of folks." These comments were published in a weekly community newspaper.

Our airport (KLRU), originally a World War II airport, is situated on 2,193 acres, eight miles west of the city on a mesa at an elevation of 4457 feet. The three runways (two are 7500 feet long and the other 6070 feet) provide six different directions for landing or departures. It has four instrument approaches (localizer, ILS, and two RNAV/GPS approaches). While non-towered, it does have radio-activated lighting for 24-hour operations. Due to our excellent weather (294 sunny days per year vs. U.S. average of 205 days), in 30 years of flying in and out of Las Cruces, I have only made one actual instrument approach. The airport does not offer commercial air service.

OPINION

What is the value of our Las Cruces airport?

Working with the airport manager, I wrote a rebuttal to the publication, which had to be under 300 words. But thinking further, I realized the market of a small weekly newspaper does not have the reach of our ***US Today***-affiliated daily newspaper. So, the following rebuttal is a longer "opinion piece" I wrote for my local newspaper.

What is the value of our Las Cruces Airport?

by Bob Worthington

The Las Cruces, New Mexico International Airport was constructed during WW II as an auxiliary to support the Army Air Force bombardier training at Deming Field (50 miles west), long before any housing development near our airport. After WW II, the military released the airport for civilian use. Today, located on the West Mesa, 8 miles west of our city, it is a lifeline for residents of Las Cruces and significant as a regional general aviation airport, a vital part of the U.S. national air transportation system. While it does not offer commercial air service, it is a very active airport.

Our airport is home to over 120 business and private aircraft, supports 16 aviation-related businesses and seven non-profit organizations. They employ more than 83 full-time personnel (and several part-time workers).

Most of us use banks and shop in retail stores. Several are branches of state, regional, or national corporations which fly into Las Cruces monthly to support their businesses. State government officials conducting business here use our airport. Border security patrols fly from here. A New Mexico National Guard aviation unit is based on the airport. Military and

cross-country transient planes stop here for refueling and food. Charter aircraft often use this airport providing transportation for local businesses (to include Spaceport America tenants) and catering to sports teams associated with New Mexico State University in Las Cruces.

Several airport businesses provide aviation fuel and aircraft maintenance services supporting southern New Mexico and west Texas.

LRU is also home to the New Mexico State University Unmanned Aircraft Systems (UAS or drones) Flight Test Center. It is one of seven FAA-approved UAS test centers in the U.S. Its mission is to define how UAS can be safely integrated into U.S. airspace. To accomplish this the Center has several UAS aircraft, air crew, technicians, and engineers, as well as a propulsion test facility.

COVID-19 has brought many medical facilities to the brink of capacity. People need emergency medical treatment every day and aerial medical evacuations allow patients to be transported quickly and safely to where proper emergency care can be provided. Our airport supports 4 to 6 medical evacuation flights every day.

The largest business on the field with 19 professionals is the air ambulance (helicopter) service. It alone, averages from 35 to 56 flights a month. It has its own maintenance facilities and back-up helicopters, and the parent corporation has medical transportation airplanes for longer flights. I am a very, major fan of aerial medical evacuation procedures because in 1968, in Vietnam, a military med-evac saved my life.

On-airport flight schools train pilots from around the nation as the sunny days are optimal for maximum flying without weather delays. Which is why the U.S. Navy conducted primary training here during the winter, in the past.

Our airport is not and never will be a noisy nuisance, but an essential economic, transportation, and medical necessity for which everyone benefits.

Airports are the lifeblood of aviation. Without airports, there is no flying. A member of our local helicopter ambulance service described it this way. "Without an airport, we could not exist. Yes, we land on highways for accident patients, and land at hospital helicopter pads. But we need an airport to base our operations, for fuel, for maintenance, and to place our back-up helicopters. Airports allow us to do our job."

In my experience, if a local airport has no commercial air service, most residents have never visited their airport, nor do they understand how important it is to the local economy and their wellbeing because of aerial medical transportation. And the COVID in the past couple of years has limited any opportunities to promote the airport by offering aviation-related events (such as EAA fly-in breakfasts or air shows).

As owners and pilots, we need our local general aviation airports. We need to confirm their value to our community. We need to explain to our neighbors how important the airport is to all of us. Yes, we use it constantly for "touch and goes" or practicing instrument approaches, but it is essential to our local commerce and a medical necessity for everyone.

Summary

As pilots, working with airport management, you can use the above editorial piece as a template to write a similar piece for your local media. Work with your airport management to get the facts. Help your community to recognize how valuable their airport is to their welfare. Instead of being a noisy nuisance or playground for rich boys with their expensive toys, it can mean the difference between living or dying for a friend or loved one. Local small airports are the lifeblood for a community, even if the citizens do not know that. You can rectify that by penning an opinion piece. Share with your neighbors why their airport is of value to them.

EDITOR'S NOTE: Pilot, Viet Nam veteran and former university professor, Bob Worthington of Las Cruces, New Mexico, is the author of "Under Fire with ARVN Infantry" (https://mcfarlandbooks.com/product/Under-Fire-with-ARVN-Infantry/), and producer of the 2019 film "Combat Advisor in Vietnam" (www.borderlandsmedia.com). Facebook: Bob Worthington Writer. Website: www.BobWorthingtonWriter.com. Bob Worthington has placed excerpts about combat flying in Vietnam (from his books) on his website. Here is a direct link to those excerpts: www.BobWorthingtonWriter.com/combat-flying-in-vietnam/. Every couple of months, he adds another excerpt.

DISCLAIMER: The information contained in this column is the expressed opinion of the author and is not intended to be legal advice. Readers are urged to seek the advice of others, and refer to publications and resources available from local, state, and federal government, including the Federal Aviation Administration, as well as the Aircraft Owners & Pilots Association. Neither the author, ***Midwest Flyer Magazine***, Flyer Publications, Inc., or their staffs, employees or advertisers assume any liability for the accuracy or content of this column or any other column or article in this publication. ❑

Culture of Service

by Mark Baker
AOPA President and CEO


Mark Baker

I OFTEN TALK about the programs, initiatives, and services we develop to maintain and protect your freedom to fly here at AOPA. But, like other successful organizations, our work on your behalf is only as strong as our team. We can only get the job done if we have the right people doing the right things in the right places.

However, it seems that everywhere you look, there are those who want to rob us of this freedom. Airports are under threat from uninformed politicians; laws are being enacted across the nation that are designed to be roadblocks in the sky; and airport neighbors are not being, well, very neighborly.

After 34 years at AOPA, Tom Haines has decided to retire from his role as senior vice president for media, communications, and outreach (see *AOPA Pilot*, April 2022, "Waypoints: And That's the Way It Is," p. 20, and "Milestones: Tom Haines to Retire," p. 34). Tom has been a prominent face of AOPA and general aviation. He has been one of the industry's April 2GA through a period of tremendous change and expansion. Under his leadership, Tom has guided and reshaped the group that brings you the story of general aviation through print, digital media, video, and events.

No doubt you have come to rely on Tom's reporting on *AOPA Live This Week*, a program he helped develop. He certainly has been one of my go-to people during my tenure, and I thank Tom for his incredible and even-keeled leadership and expertise.

Also retiring from AOPA after 30 years of dedicated service is another familiar face: Melissa Rudinger. Melissa has served AOPA and the GA community in many important roles. She was a key liaison to the FAA in her government affairs position, protecting general aviation from overly restrictive policies in the aftermath of September 11, 2001. Melissa helped to enable the safe integration of drones into the national airspace system and advocated for the NextGen modernization initiative. Melissa also assembled a great team at the AOPA Foundation and put it in excellent shape for the future. A reminder that the AOPA Foundation funds important programs here: You Can Fly and the AOPA Air Safety Institute.


Tom Haines


Melissa Rudinger


Ron Golden

From the day I joined AOPA, I have been blessed to have an amazing team—with the talent, can-do attitude, and strategic approach we bring to the office every day.

It's no wonder that among the more than 220 staff we have here at AOPA, the average tenure is nearly 10 years on the job. Give people a clear mission and vision, the tools to be successful, and the support they need—that's a recipe for success, for employees and our members.

I must take time this month to recognize three special colleagues who will be moving on to their next chapters after long and successful careers here at AOPA protecting your freedom to fly.

Many of you also know Melissa through her time as an *AOPA Live This Week* co-host with Tom. AOPA and the general aviation industry are better off today because of Melissa, and we wish her the best in her next chapter (see *AOPA Pilot*, April 2022, "Milestones: Melissa Rudinger Starts Own Company," p. 35).

One more person I'd like to recognize has served our members in a critical, but behind-the-scenes way. Ron Golden is retiring after 42 dedicated years at AOPA, most recently as our deputy general counsel. Over his decades of protecting your freedom to fly, Ron's many accomplishments include helping to form and launch the AOPA Legal Services Plan, now with 73,000 members. Ron has represented AOPA and our members in state supreme courts, federal district courts, and the U.S. Court of Appeals for the District of Columbia Circuit, and has defended general aviation rights in landmark cases.

A heartfelt thank you to Ron for his years of tireless devotion to AOPA, and for helping to protect our members' cherished freedom to fly.

Tom, Melissa, and Ron are emblematic of the incredible team here at AOPA, and I will miss their daily guidance. The good news is that all three are active GA pilots, so I plan to still see them on the ramp!

Now don't get me wrong. You don't have to be "seasoned" to make an impact here at AOPA on members' behalf. In fact, many great new people have joined the AOPA team over the past few months, and I'm excited to see how their contributions benefit the community.

Maybe that's why we've only had five presidents in AOPA's 83-year history. There's nothing magical about the leaders, but there is something very special to the people who support them—and you.

mark@aopa.org ❑

A Discussion About 100LL

by Kyle Lewis
Regional Manager
Airports & State Advocacy • Great Lakes Region
Aircraft Owners & Pilots Association

If you have been anywhere near other pilots, or have had an ear to aviation news, you know that the biggest issue facing general aviation today is the pressure to remove lead from our fuels.

We get it, and we're on it.

Much of that pressure, we are putting on ourselves. AOPA and the GA industry are 100% all in for a total lead-free future. At the same time, however, we are firmly in favor of a transition that gets us there safely and smartly. No one I know defends lead, but we do defend the need to make the transition to one that safely works for the entire fleet. All 200,000 aircraft. No less.

We need to achieve this goal soon. Airports are under threats of closure (some city councils and other governing bodies are using the leaded fuel issue as the current flavor of the month to close the local airport), and the Environmental Protection Agency (EPA) recently said it is going to pursue a potential endangerment finding against the industry. That could come as early as 2023.

With the clocks ticking, AOPA joined a partnership of GA associations, airports, manufacturers, and fuel producers, and the FAA just last week to announce an initiative to eliminate the use of leaded aviation fuel by the end of 2030. This pledge includes the focus on not compromising any safety for the current piston-engine fleet. EAGLE (Eliminate Aviation Gasoline Lead Emissions) is bringing everyone together (everyone!) who is a party to this issue in a way in which we can all work together toward this goal.

However, it's important to note that EAGLE is just one means that is being used, although it is an important one.

The bottom line here is urgency, and building on the progress we have already made, especially in light of the pending EPA action. EAGLE is about getting to lead-free by 2030, but truth be told, we're looking to get there sooner. We have to.

While EAGLE is an important effort, again, it's a means. What we're focused on is the GOAL: the drop-in UL100 fuel for the entire fleet. AOPA continues to support all avenues to get us to this finish line as soon as we safely can. Progress has been made, from GAMI's G100UL STC approvals, to Swift's UL94 at several airports and its 100UL candidate (and other testing of other high octane unleaded fuels). There is light at the end of this road.

As you would expect, AOPA President Mark Baker is a leader of the EAGLE initiative, as he will often say that the search for the drop-in high-octane unleaded fuel is the biggest issue he has faced in his eight years at the helm of AOPA. For what Mark has seen and successfully managed at AOPA, that is saying a lot.

Another thing Mark and other AOPA leaders have done, and to support the work being done by EAGLE and others, is to rally the GA community to create the Avgas Coalition.

The mission of the Avgas Coalition is clear: rally dedicated organizations who are aligned on a smart transition to unleaded aviation fuel – as part of a proactive pathway to cleaner skies. The Avgas Coalition is about being better informed, engaged and aligned in our collective goal of becoming lead-free.

In just the first few months, the Avgas Coalition has grown to more than 100 organizations that represent a wide range of perspectives. Members include AOPA, EAA, NBAA, GAMA, the American Petroleum Institute, Cirrus Owners & Pilots Association, Minnesota Pilots Association, and the Commemorative Air Force – just to name a handful.

I invite you to visit a website (**aopa.org/100UL**) that AOPA has created, along with the GA industry, to keep the aviation community up to date on industry and government actions in this area. We will continue to update this site.

Yes, this has been a challenge. But the push toward a lead-free GA future is also an opportunity – one that brings together all corners of the general aviation community in a way that will protect our very freedom to fly for decades to come.

I invite you to stay informed and engaged.

kyle.lewis@aopa.org ❑

The Queen City of the Gulf - Galveston

Sharing my passion for flying/aviation with “my girls” is special. This was also my niece Luna’s first cross-country.

by Yasmina Platt

Galveston is a coastal resort city, island, and port (cargo and pleasure) less than 50 miles southeast of Houston, Texas. The mid-1870s to the mid-1890s was the apex of Galveston’s prosperity and importance as a city. The downtown area became the Wall Street of the Southwest. But everything was devastated by a 15-foot storm surge during the Galveston Hurricane of 1900 that flooded the city. It was rebuilt and, thankfully, some of the historic homes still stand to tell the story of what once was. Galveston is a great place to fly to for the day or the weekend, all year round.

The water was particularly blue and beautiful that day, which was nice to see. The air was crisp and smooth. My little copilot was happier at the controls but understood when it was time for Aunt Yasmina to take over.

My mom, Maria-Angel, my sister Yanira, my niece Luna and I recently took a "girls' trip" to Galveston. We flew to Scholes International Airport (KGLS) by way of NASA Johnson Space Center and Kemah for some aerial sightseeing.

My mom, Maria-Angel, my sister Yanira, my niece Luna and I recently took a "girls' trip" to Galveston for the day (I don't live that far away). We flew to Scholes International Airport (KGLS) by way of NASA Johnson Space Center and Kemah for some aerial sightseeing.

The water was particularly blue and beautiful that day, which was nice to see. The air was crisp and smooth. My little copilot was happier at the controls but understood when it was time for Aunt Yasmina to take over.

Luna is 4 years old and, therefore, still required to sit in a car seat when in a car. We did not bring one with us; therefore, taking the FBO's courtesy car or calling an Uber was not an option, but walking or catching a ride in the FBO's golf cart was. The FBO was gracious enough to take us to "Moody Gardens" in their golf cart (which added to my niece's adventure) and then we simply walked back. It's only a half a mile away.

I guess Moody Gardens can be considered a theme park; it has an aquarium, a rainforest, a museum, 3D and 4D theaters, a paddlewheel boat, a spa, a golf course, and a waterpark. It also has restaurants (we ate outside by the water), a hotel, and a convention center. During the Christmas holidays, it also offers a festival of lights. It's just a great spot to spend the day with kids.

In addition to Moody Gardens' waterpark, the famous (at least "Texas famous") "Schlitterbahn" franchise has a bigger waterpark between the airport and the Gardens as well.

Another obvious activity one can do while in Galveston is to go to the beach. There is beach access down 83rd Street, about a mile away. Easy! Several restaurants and hotels can also be found up and down the seawall.

If you take the courtesy car, rent a car, or hitch a ride, many more possibilities open up. The "Galveston Island Historic Pleasure Pier" is an amusement park on a boardwalk, over the ocean. "The Strand," as Galveston's downtown area is called, has several restaurants and shops, some art galleries, the "Texas Seaport Museum" (where the Elissa sailboat resides), and the "Grand 1894 Opera House," among other things. One can also watch cruise ships, ferries, and big ships come and go through the Galveston Channel near The Strand. The nearby "Naval Museum" is also interesting.

Additionally, there are companies that offer walking tours of historic mansions, ghost/haunted tours, Segway or ebike tours, duck boat tours, fishing charters, and dolphin watching tours.

Everybody enjoyed the day trip, but it's possible I enjoyed it the most. Sharing my passion for flying/aviation with "my girls" is special. This was also Luna's first cross-country (we've been building up to it during a few previous flights), and she's ready for another one. So, that's in the works.

Who do you enjoy sharing flying with?

For more information about "Air Trails" and other flying destinations, visit **www.airtrails.weebly.com**. Fly safe, fly often!

ABOUT THE AUTHOR: Yasmina Platt's full-time job has her planning the future of aviation infrastructure for Joby's electric Vertical Takeoff and Landing (VTOL) aircraft. She also writes an aviation travel blog called "Air Trails" (www.airtrails.weebly.com), in addition to articles on pilot destinations for ***Midwest Flyer Magazine.*** Pilots can locate articles Yasmina has written by going to www.MidwestFlyer.com and typing "Yasmina" in the search box, or by going to the "Archives" section, then "Columns," then "Destinations." ❑

The author's "Bluebird of Happiness" and the unfolded bike, ready to tour Superior, Nebraska.

Biking Nebraska by Plane

by Tom Winter

What if, when you land at a Nebraska airport, you want to explore the town? Take it from me, there are some great bike rides out there. Small town Nebraska is great for bicycle tours, and the people you stop and chat with are delighted that the guy on the bike got there (deliberately!) in an airplane.

Here are some towns in Nebraska I have explored by plane and portable bicycle.

Albion (KBVN) is a favorite, a three-mile bike ride through rolling countryside, with pleasant stops along the way to admire, and even to photograph the landscape, including a stop on the bridge over Beaver Creek.

Red Cloud (7V7), as a bike ride, is barely worth mentioning, as you could spit from the airport to the town, but you unfold the bike anyway, for the sake of exploring the town. Park anywhere. Drop in at Scott Osborne's bookstore for some hospitable free coffee and discussion. It's the first building south of the Willa Cather Center.

The road at Brenner Field, Falls City (KFNB), which is also a "stone's throw" from town, is now paved with rocks as big as your fist. I learned to ride a bike 70 years ago, and have never had an accident, but I dumped the bike

Placid countryside bike ride back to the Superior, Nebraska Airport.

Low Moor, Iowa is right under the Clinton, Iowa pattern and is an easy bike ride from CWI.

navigating this rock-strewn route. The Mars Rover would not be safe to land there.

Philip Chaffee at Brenner Field asked me if I would like to use the courtesy car. Next time, I'm going to say yes, and will stuff the folding bike in the trunk so I'm not stuck with a car when I get to town. Love the town, though! There are many old and picturesque homes. Friendly people, too. The guy running the service station happily aired up my soft rear tire from a compressor he had in the back of his truck.

At Scribner (KSCB), you have a choice of small-town tours, because the airport is smack dab between Scribner and Hooper. Skylar Steffes (2019 Nebraska DOT Division of Aeronautics Employee of the Year) will offer you a ride into town. If your choice is Scribner, take him up on it. It's no fun bicycling 3 miles on Hwy 275. For biking, Hooper is the better choice: ride straight east 4 miles on County Road J into Hooper. There's a little "mom and pop" restaurant at the edge of town where you can refresh yourself with a soft serve cone.

Don's Barber Shop, on Hooper's historic main street, is where I go to get my haircut. $10, and you "look like a gentleman," as Don puts it. (The Hundred Dollar Haircut!)

Planning helps. I often get on Google Earth, which is easier nowadays. Simply enter the town name in the search box, click on the map, then click on "satellite" at the lower left-hand corner, and zoom in. You can get close enough, if there is a highway, to see if there is a ride-worthy shoulder. This often doesn't matter, as the typical road from a small-town airport to the town is not heavily traveled.

The road from Matt Christen's shop at Pawnee City (K50K) has two lanes and is blacktopped and you'll be the only traffic on it! Sometimes I call airport manager, Matt Christen, to check on the grass strip first. Exploring Pawnee City, you will soon find a bike trail past steel sculptures, that are aptly titled "Children at Play." The Pawnee City bike trail ends up in the 710 Trail. Again, you will be the only traffic on it!

What makes all this fun possible is a folding bike that I can place in the back of my plane – "The Bluebird of Happiness" – a 1967 Cessna 150.

At the Monkey Wrench bike shop, they recommended Dahon folding bikes (**usa.dahon.com**). A Dahon comparable to mine is $979.00…another model sells for $899.00, although their website does list some less expensive manufacturers.

A friend owns a Bike Friday bicycle (**bikefriday.com**), which was hand-made in the USA, and costs $1,200.00. Brompton Bikes of London, England, also has a handmade folding bike (**brompton.com**). Folders start at $1,400.00 and go up to $2,400.00. I own a Downtube Nova (**downtube.com**), made in Avon, N.C. Still just

$359.00, and in my opinion, better by actual comparison to the Brompton and Bike Friday.

EDITOR'S NOTE: While many general aviation airports provide courtesy cars, there's no guarantee they will be available upon your arrival, and COVID-19 free! Portable bicycles offer an alternative, so long as they are transported in your aircraft safely, legally and according to the aircraft manufacturer's recommendations.

DISCLAIMER: The information contained in this column is the expressed opinion of the author only, and readers are advised to seek the advice of others, and refer to aircraft owner manuals, manufacturer recommendations, the Federal Aviation Regulations, FAA Aeronautical Information Manual and instructional materials for guidance on aeronautical matters. ❑

Fly Out/Order In

by Karen Workman

Food is always a good reason to fly, but fly-in breakfast season is still a few months away. So now what is our motivation? Food, still, with hundreds of oftentimes unknown great choices.

There are some airports with very good restaurants right on the field, within walking distance or even a short drive away if you are fortunate enough to get a crew car. Sadly, many of us are concerned about airborne illnesses (hello, Covid-19) and would prefer the comfort of social distancing. Solution: "Fly out/order in." That is, fly to a random airport and have lunch delivered to you there.

"Fly out/order in" is a win/win/win! Maybe more wins, but three obvious ones are: 1) You benefit from the flying experience; 2) The airport may/should make a fuel sale (yes, you are using their services and you should feel obligated); and 3) The local economy gets a boost.

Many small towns in the Midwest have a pizza joint or sub shop with "freaky fast" delivery in proximity of the airport. They will bring your hot pizza or freshly made sandwiches right to the airport, so you can maintain your social distancing. You might even be able to borrow a crew car, run out and pick up food from the local diner to bring back to the FBO where you are in control of the environment. Relax and enjoy yourself in the relative quiet of a spacious, newly discovered airport "dining room" with the happy sounds of propellers spinning and comforting smell of avgas just outside the door while you eat.

There are well over 100 airports in Minnesota alone, and many of them have a quiet, comfortable FBO with plentiful seating and tables. Some FBOs are truly gems, such as Worthington, Minnesota (KOTG), with a cozy club-like feel; plenty of seating around casual high-top tables or the heavy wooden farmhouse table, as well as comfy leather armchairs for relaxing while waiting for your food to arrive.

Notable also are Airlake/Minneapolis, Minnesota (KLVN), where you can sit at the windows overlooking the runway while you dine; New Ulm, Minnesota (KULM), with a huge, round conference table that can seat six adults with plenty of spacing in between, and Albert Lea, Minnesota (KAEL), which was beautifully remodeled to include a well-equipped kitchen with dining booths at the edge of the lobby.

Bring your good etiquette to your "fly out/order in" adventure. Leave no trace after eating; no one should know you were even there. Tip the delivery driver or leave gas money for using the crew car. Buy fuel from your host airport. The airport may not have the cheapest fuel but consider the cost difference a tip for allowing you an interesting destination and comfortable place to enjoy a meal.

Fly-in breakfast season may be just around the corner, but "fly out/order in" is always a good option for breakfast, lunch, or dinner. Grab your friends and go explore! You may find a new favorite airport, and if not, keep flying and look for them. It is all about the flying, after all. The food just makes the destination more interesting.

CHOOSING AN AIRPORT

It may take a little sleuthing to choose your destination airport. A VFR chart is a good place to begin. Find an airport within the distance you would like to fly, pull out your State

Airport Directory or open ForeFlight to see what restaurants are nearby, and whether there is a crew car available. You can also zoom in on a Google map to see what eateries are in town and likely to deliver. A phone call can confirm your options before you takeoff. Place your order after you land. Remember to ask for extra napkins and utensils you might need.

AIRPORT RESTAURANTS

There are a few general aviation airports within a reasonable distance from Minneapolis-St. Paul, Minnesota (center of the universe) that have excellent restaurants right on the field. Smack in the middle of the universe is St. Paul Downtown Airport (KSTP) featuring Holman's Table, a white-linen eatery in the old art deco, quarried stone control tower. To the north is Brainerd, Minnesota (KBRD) with a freshly remodeled café next to the aircraft parking ramp. To the east, across the river in Wisconsin is Eau Claire (KEAU). Their Hangar 54 Grill is open only for lunch and dinner, as is the new Mexican restaurant, Avion Azul, to the south at Mason City, Iowa (KMCW). A popular breakfast destination is Tri-County Regional Airport (KLNR) in Lone Rock, Wisconsin. The restaurant re-opened in 2021 under the name Sam's Airport Diner in the former Flight Service Station building within steps of aircraft parking. The Jet Room Restaurant at the Wisconsin Aviation terminal on the east side of Dane County Regional Airport (KMSN) in Madison, Wisconsin, has an elaborate menu for breakfast and lunch and is open seven days a week. (See advertisement on page 28 in this issue of *Midwest Flyer Magazine*.)

EDITOR'S NOTE: Karen Workman is an instrument-rated commercial pilot. She keeps her beloved 1968 Cherokee 180D at Faribault Municipal Airport – Liz Wall Strohfus Field (KFBL) in Faribault, Minnesota. ❑

Pancake Breakfast

by Dean Zakos

I am alone in a corner of the lounge at the FBO. From my window seat overlooking the runway, I can see that a beautiful Saturday morning is developing, with a forecast for widely scattered clouds and light winds from the southwest. It is going to be a great day for pancakes, eggs, and sausage. And some flying.

I am the first in our group to arrive at the airport. We had talked earlier in the week about meeting at 8:00 am at the FBO and flying to our chosen destination. The small airport hosting the pancake breakfast this morning is only about 45 minutes flying time away. In the warm weather months, you can find quite a few breakfasts to fly to on weekends. This one, held in mid-June every year is, by all accounts, one of the better ones. Good food and good company are a given but, beyond that, this one offers a turf runway and the opportunity to see many antique and classic aircraft. It is a popular breakfast and attracts aircraft from up to a hundred miles away.

Pilots and passengers begin showing up. I will be flying my airplane with a good friend in the right seat, who is also a pilot. I offer a backseat to any non-pilots looking for a ride. An older guy, white-haired and walking slowly, who I know by sight (I could not remember his name), asks if he could join us. I answer in the affirmative and we introduce ourselves (again) to each other. I think I have flown with this gentleman before. Although not an aviator, he loves airplanes, and is quite knowledgeable about World War II aircraft and airplane history.

After the group catches up on the airport's happenings since last week and confirms it will be a CAVU (ceiling and visibility unlimited) day, we are ready to go. There will be six aircraft in our little squadron. Although we are all flying to the same destination, it will not be a formation, as all six aircraft are different – a V-tail Bonanza, a Piper Cherokee, two Cessna Skyhawks, my Grumman Tiger, and an RV-8A. I know from experience, with a variety of aircraft, our arrivals at the breakfast airport will be spaced out.

Soon the small crowd of pilots and passengers in the lounge is sorted out, and everyone has found a seat in an aircraft. The unwritten rule, for as long as I can remember, is that the pilot flying pays for the gas, and the pilot's passengers pay for their own breakfasts, and that of the pilot. Always seemed fair to me, and this arrangement has worked well for us.

The Bonanza is the fastest airplane in the group and will likely land first. It is odd to me, but often the fastest airplane will also be the first off the ground. I never brought it up, but it would seem to make more sense to have the slowest airplane depart first, second slowest next, and so on, with the faster airplanes' pilots and passengers loitering a few moments longer, so that our group all arrives at about the same time. That level of organization is, apparently, beyond the concern of most GA pilots out for a Saturday flight. I think pilots can be an impatient, and competitive, lot.

The owner of the Bonanza operates a small manufacturing business. He is a good pilot, conscientious, stays current, and takes some long IFR trips – to Florida, the west and east coasts, and to Canada.

The Cherokee is owned and flown by a pilot who works for the largest employer in town. He has advanced degrees, is smart as a whip, and is an engaging guy for conversation on just about any subject. It is an older Cherokee (with the handbrake and overhead trim crank), but the airplane is well-cared for. With the advent of GPS and ADS-B, this pilot has always chosen his own ingenuity over simply purchasing the latest pricey black boxes on the market and paying an avionics shop to install them in his panel. It is an interesting cockpit to see. I would describe it as a sort of a "Rube Goldberg meets NASA" décor," with an iPad (or three) and several aftermarket avionics boxes duct-taped, velcroid, or zip-tied to the yokes, piled on top of the panel, or stuck on side windows, with power cords, wires, USB connections, and antennas running everywhere. Surprisingly, it all works, is compliant, and he is happy.

The Cessna Skyhawks are pretty much stock. One is owned by an individual, the other a partnership comprised of seven pilots. The partners represent a cross-section of the pilots on our airport. Ex-military, a cop, a firefighter, a teacher, an accountant, a factory worker, a nurse – all walks of life. That is one thing about general aviation that makes flying

so interesting. The people you meet, from all backgrounds and locales, are all different, but hold a common and easily shared interest in aviation.

I have owned my Grumman Tiger for about 20 years. I started flying later in life. I thought I would have earned my Private Pilot Certificate earlier, but school, family, and work were my priorities, and those things necessarily made the largest demands on either my time or my money. I have a little more of both now, and eagerly look forward to our Saturday morning flyouts. What attracted me to the Tiger? – the sliding canopy, of course. I am never going to be able to sit in a fighter jet, so this is the closest I will ever be to my childhood dream – and I am okay with that.

The RV-8A is gorgeous. I never had any desire to build my own airplane, which is good, because I doubt I would want to fly in an airplane that I had a role in building. I am just not handy or talented enough. The owner/builder of the RV is. White, with bold blue stripes and a three-blade prop, the experimental airplane looks fast just sitting on the ramp. The pilot who built the RV-8A is obviously proud of his work, and it shows. He is sometimes reluctant to land on grass because of the nosewheel, but our destination airport has a reputation for being one of the finest turf runways in the area – long, wide, and smooth. He has room for one passenger in his tandem seating configuration and will probably be the second airplane into the air today.

Two of my good friends, a husband and wife, will not be able to join us this morning. I watched them build their VariEze, a Burt Rutan-designed homebuilt, sporting a pusher propeller, swept wings with winglets, and a canard, over several years in the T-hangar next to mine. It required long hours and they encountered many challenges, but they are pleased with the result of their efforts. I remember when they were sanding the composite exterior. They would often emerge from their hangar after a few hours looking like they had been engaged in a competition, the object of which appeared to be who could pelt the other with the most 5 lb. pound sacks of flour. They loved the project, and they love flying.

Sun showers the cockpit in morning light on climb-out. I glance over my right shoulder at the passenger sitting behind me. Unconsciously, his mouth is open slightly and his eyes wide; he is unaware of his facial expressions. Instead, he is completely absorbed by the sharp-edged cumulus clouds floating in a boundless blue sky passing off our wingtips as we ascend to our cruise altitude.

I think, as pilots, we sometimes take for granted what a gift flying is. I have been flying long enough that I am afraid some of the wonder is gone for me. It should not be, but it takes seeing someone else's natural reaction to remind me, once again, that sitting at the controls of an airplane, climbing through the air, and taking in the extraordinary views out of a cockpit window are, indeed, magical.

We are level now at 2,500 feet and chatting amiably. Roads, farms, lakes, towns, all roll by beneath us at a steady pace. The morning air is smooth as glass. Visibility is unlimited. What a day! I have friends who are airline or corporate pilots, and they sometimes ask to fly with me on weekends. They want to fly low and slow. Jets and turboprops are fine for the flight levels, but the unhurried pace generated

by a four-cylinder Lycoming or Continental, the ability to see clearly what you are looking at on the ground, is part of every pilot's roots, and what every pilot yearns to return to.

About 15 miles out from our destination, I tune to the nearest ASOS broadcast, the grass strip having no weather reporting capability. The synthesized voice informs us the winds are from 260 degrees at 5 knots. Few clouds at 2,300 feet. I next tune in the CTAF frequency where we will land, anticipating that this morning, even though it is only a turf runway nestled among rolling farm fields, there may be a lot of traffic on the frequency. There is. Everybody and their little sister like pancakes. Based on position reports we are hearing, there are three aircraft in the pattern, and six more within 5 miles, all approaching from different directions. Traffic is landing to the west. We are approaching from the east. We will continue to monitor the traffic situation the rest of the way and keep our heads on a swivel. Ten miles out, I make our first reporting call, and turn my strobes and landing light on. We will land on Runway 27, with the traffic flow.

Five miles out, based on who is currently in the pattern or approaching at our estimated time of arrival, I advise traffic that we will overfly the field above the pattern and turn midfield left crosswind for 27. There is a Champ on base about to turn final, a Skyhawk 5 miles north that will enter a left crosswind for 27, presumably behind us, and a Stinson inbound from the west. We are not yet sure of the Stinson's position or intentions. My pilot friend reminds me that, although we think we have a good mental picture of the traffic and an active ADS-B screen, there still may be aircraft without radios or ADS-B Out, entering the pattern. This is no time to be complacent, thinking only of how good the scrambled eggs will be.

Turning base to final for Runway 27, I remain vigilant for any aircraft that may be attempting to sneak in around or under us. Hearing and seeing none, we proceed to land. If everyone follows the rules, exercises some common sense, and remains cautious, we should all continue to be safe. The turf is smooth, closely cut, and inviting. A volunteer in a Day-Glo vest holding two orange wands over his head catches my attention near the end of our rollout and directs us to parking.

As we taxi, I slide the canopy back so we can enjoy the smell of freshly mown grass and the unmistakable aroma of breakfast sausage. We are marshalled to the next open spot in a long row of colorful aircraft facing the runway. I notice several familiar airplanes and tail numbers.

The breakfast is prepared and served in a large hangar. Volunteers have moved aircraft out, swept it clean, and set up long, neat rows of tables and chairs. An American flag hangs on one wall. As we stand in line, I notice the tables are adorned with plastic tablecloths and bottles of maple syrup, and each displays a simple vase with a few freshly cut flowers. It is a nice touch. Men and women in yellow T-shirts sit at a table in front of a cash box, ready to take our money and engage in friendly conversation. "Where did you fly in from?" and "How was your flight?" are two of the more popular and often-asked questions. "Thank you for stopping in today," almost always accompanies being pointed in the direction of the next station, toward the napkins, plates, and silverware.

More yellow T-shirts expertly pour batter and flip pancakes on round, rotating griddles, scramble dozens of fresh eggs, or constantly replenish aluminum pans of piping hot pork sausages. Some volunteers move from table to table, bringing new supplies of syrup, cleaning up spills and errant clutter, or simply chatting with the diners. A good breakfast only works well because of the myriad of volunteers involved. Nothing happens without them. Small airports would be less interesting and a lot less cheery without volunteers, who seem to be always smiling and willing to lend a hand.

Pancake breakfasts are a proud tradition. At the next table over, there is a family with three generations of pilots. The grandfather learned to fly in the 1950s; the son learned to fly in the 1970s; and the granddaughter flies today as a 737 Captain for Southwest Airlines. The local community has come out to support the breakfast as well. Families wait in line patiently, some with small children holding toy airplanes in their hands, gesturing excitedly, and asking questions about the aircraft around them. Outside the hangar, there is a small group of Explorer Scouts, probably from a local Post, who often provide their volunteer services to events like this.

There are few things in life better than flying into a pancake breakfast and recognizing old friends sitting around you who also flew in for the morning. Friendship in aviation is easily found. Once friends are made, they stay made for years, regardless of the passing of time or the miles between them. I watch as one group of pilots approaches another, smiles of recognition on their faces, and extend greetings with handshakes and inquiries about the morning's flight, the local aviation news, or the latest paint jobs or interior renovations on their planes.

We dawdle over remnants of our breakfasts and by now, cool coffee, talking of flying and airplanes, and taking in the noisy, bustling atmosphere inside the hangar. Being mindful of the line of people still waiting to eat, we give up our table, buss our trash to the nearest receptacle, and walk back outside into the warm sunlight.

The lines of parked aircraft have grown larger since we landed, and there are still airplanes arriving. Rather than heading back right away, we choose to walk off a few calories and our interest takes us first to the flight-line and the rows of aircraft on display there. Antiques, classics, and more modern airplanes are comingled on all available flat surfaces. There is even a few warbirds in attendance, as I notice a bare aluminum North American T-6 Texan, and a Boeing Stearman painted in Army Air Corps trainer colors parked not far from each other. Over there is a black-over-red Beech Staggerwing parked next to a Robin's egg blue gull-wing Fairchild, both looking as good as the days they rolled off their assembly lines.

There are a few vendors here too, taking advantage of the crowd drawn to the airport this morning. Local organizations, such as the EAA Chapter and Women in Aviation International, offer literature, promote scholarships, and hand out application forms. They are happy to answer questions about memberships and activities. You can purchase aviation-themed T-shirts or coffee mugs spread out on a table if you are so inclined. There is a frail, gray-haired gentleman I recognize sitting at a card table, copies of the book he authored piled high in front of him. He is waiting to chat about his life in the air and, if you buy a book, he will gladly sign it for you. Like so many of us, he was never an astronaut, military pilot, or airline captain, but he still has interesting flying stories to tell.

We next walk down a row of wood framed, rust-tinged, corrugated metal hangars, many of which have stood on this airport since before I was born, their weathered doors open, inviting us in. A Pietenpol sits in the first hangar, the owner talking in animated fashion to an admirer. The next hangar houses a Cessna 140. Two doors down, a brightly painted Taylorcraft catches our attention. A Piper Tri-Pacer, looking neglected, tires flat, prop missing, half covered in a ragged tarp, half covered in dust and cobwebs, sits forlornly in another hangar. Often, someone in our group can add some detail or a comment about an airplane we are inspecting:

"I soloed in a Cessna 140 in 1974."

"My dad took me for my first airplane ride when I was 5 years old in the Skyhawk he owned and flew off the grass strip on our farm."

"I have always wanted to fly a Tri-Pacer. I wonder if it might be for sale!"

The morning passes enjoyably, and quickly. It is time to depart. I smile to myself, thinking about our flight and just concluded breakfast. Men and women we never knew, now gone west, who were so very much like us, landed on this same grass strip, enjoyed breakfasts with their friends and families, and strolled these same grounds. I do not often think about participating in what has become a flying tradition extending to pilots and airports across the Midwest, but when I do, I am pleased to be a part of it.

Over time, each of us, contributing his or her own story, adds to and becomes part of aviation's heritage. That heritage, in turn, belongs to all of us. Pilots who come after us, I am certain, will feel the same way.

Climbing above the horizon into a bright sky, I key the microphone and transmit our intention to depart the pattern and head east, setting course for home. I am already looking forward to next Saturday.

EDITOR'S NOTE: Dean Zakos (Private Pilot ASEL, Instrument) of Madison, Wisconsin, is the author of ***"Laughing with the Wind, Practical Advice and Personal Stories from a General Aviation Pilot."*** He has also written numerous short stories and flying articles for ***Midwest Flyer Magazine*** and other aviation publications.

DISCLAIMER: The information contained in this column is the expressed opinion of the author only and should not be used for flight planning purposes. ❑

We're Back At Sun 'n Fun

AOPA is back and the staff is looking forward to seeing members at SUN 'n FUN Aerospace Expo, April 5-10, 2022, at Lakeland Linder International Airport (KLAL), Lakeland, Fla. The AOPA campus is located on Laird Blvd., across from the FAA Building.

AOPA Ambassadors will be on hand to help members find the services they are looking for.

Pilot Information Center: Whether you are looking for FAA regulation information, planning your next flight, or want to know how a medication might affect your certificate, all the resources that support your desire to fly are here. Learn the latest about legal services for pilots and financing for aircraft, and what's new in avionics, engines, and flight training.

Airport Support Network: Find your local Airport Support Network Volunteer from the AOPA Airports and State Advocacy Team.

Pilot Gear Store: Shop the AOPA Pilot Gear Store to update your wings with the latest AOPA merchandise.

Air Safety Institute: Check out the AOPA Air Safety Institute's many free courses, quizzes, and seminars to make you a better, safer pilot.

You Can Fly: Learn what AOPA's You Can Fly Program can do for you by talking to representatives of AOPA's flight training department and flying clubs. Want to avoid getting rusty? Tune in to AOPA Webinars! Stop by and see how AOPA can help you get back in the air with its "Rusty Pilots" program, chat about flying clubs and learning to fly, the next generation of young pilots, or just talk aviation with one of our You Can Fly Ambassadors! You Can Fly is fueled by the AOPA Foundation.

Support general aviation through the AOPA Foundation: Learn more about the programming funded by generous donors; recognition levels for giving, including the Hat in the Ring Society; and how you can help build a stronger, safer aviation community for current and future pilots (aopa.org). ❑

MAC GA Airports See Continued Growth

MINNEAPOLIS-ST. PAUL – The six general aviation airports operated by the Metropolitan Airports Commission (MAC) grew their operations in 2021 by 8% collectively—an increase to 352,195, or 26,151 more takeoffs and landings compared to 2020.

"The strong demand for our general aviation system did not wane over the past year," said Brian Ryks, CEO of the MAC. "Our general aviation airport system overall has seen double-digit growth in operations from 2019 to 2021, and the total number of aircraft based at our six reliever airports has held steady at more than 1,300. The amount of flight training occurring at our airports is very promising as airlines look to backfill large numbers of vacancies due to pilot retirements and focus on continued growth in demand."

A Cirrus SR22 flys by St. Paul Downtown Airport (KSTP), one of six reliever airports to Minneapolis-Saint Paul International Airport (KMSP). The reliever airports operated by the Metropolitan Airports Commission (MAC) had an increase of 8% in total operations in 2021 over 2020. *(MAC Photo)*

The MAC's general aviation airports are referred to as "reliever airports" within the Twin Cities metropolitan area because they relieve congestion that would otherwise impact Minneapolis-Saint Paul International Airport (MSP), which had 303,850 total operations in 2021, a 24% increase over 2020.

Despite the pandemic, MAC reliever airports in 2021 continued to build on the momentum from 2020, when the reliever system posted 2% growth over 2019 activity levels.

"We have seen a resurgence in private business travel and in leisure and educational flights across our system of reliever airports during the past year," said Joe Harris, director of reliever airports for the MAC. "In 2021, corporations began flying their business jets more often and the demand for flight training programs at our reliever airports has been off the charts. We expect these trends to continue into 2022 as more workers return to the office and pilots continue training at one of the many flight schools located at our relievers."

St. Paul Downtown Airport (STP) and Airlake Airport (LVN) located in Lakeville, MN, saw the largest increases in total operations in 2021. Takeoffs and landings at STP, which serves more corporate activity than other reliever airports, increased by 29.8%, or more than 9,000 additional operations over 2020. At LVN, which serves primarily leisure flying and flight training, activity increased by 15.8%, or nearly 5,000 more operations in 2021 than 2020.

The only reliever airport to see a decrease in operations in 2021 was Crystal Airport (MIC), located northwest of Minneapolis, where takeoffs and landings dropped by 4.2%, or around 1,600 operations.

The MAC's remaining three reliever airports—Flying Cloud Airport (FMC) in Eden Prairie, MN; Lake Elmo Airport (21D), located between St. Paul to the west and the St. Croix River to the east; and Anoka County–Blaine (ANE), located just north of Minneapolis and St. Paul—each saw increases in operations ranging from 5–10%.

Airport	2021 Final	2020 Final	2020-2021 Change
21D	32,645	29,799	9.6%
ANE	74,657	70,852	5.4%
FCM	131,593	124,382	5.8%
LVN	36,259	31,314	15.8%
MIC	37,845	39,509	-4.2%
STP	39,196	30,188	29.8%
	352,195	326,044	8.0%

Click here to view a complete summary of 2021 reliever airport statistics.

The MAC's reliever airports returned to hosting outdoor, in-person community events in summer 2021. Notable events in 2021 included Flying Cloud Airport's Girls in Aviation Day and the AirExpo aircraft showcase, as well as the annual Father's Day pancake breakfast at both Lake Elmo Airport and Crystal Airport.

Continued investments at MAC's reliever airports are planned for 2022. Major improvements continue at Lake Elmo Airport to complete the relocation and extension of Runway 14-32, which will be paved later this year. The new runway will span 3,500 feet and will allow the existing runway to be converted to a taxiway. New lighting, signage and other airfield safety improvements are also planned.

The MAC's reliever airport system generates an estimated $756 million a year for the area economy and supports more than 3,600 jobs (www.metroairports.org). ❑

Women's Aviation Career Symposium Marks Successful Event

Women's Aviation Career Symposium scholarship recipients.

BATTLE CREEK, MICH. – The fourth annual Women's Aviation Career Symposium (WACS) was held February 19 in Battle Creek, Michigan. This event was a professional career conference (for women only) designed to introduce women to aviation and promote networking, education, and scholarships while building up the aviation community.

With over 180 people in attendance, WACS awarded $32,000.00 in scholarships, quadrupling the amount given in 2021, and tripling the goal for this year, thanks to donations from over 30 sponsors. As a result, 16 women each received $2,000.00 to go towards aviation education and training in the categories of flight training, maintenance training, professional development, and engineering.

"We are grateful and honored by the generosity of our sponsors," said Mary Poirier, WACS Co-Founder. "We are amazed at how the aviation industry is coming together to support women in aviation."

Representatives from 25 aviation companies and schools visited and spoke with attendees. The event featured roundtable discussions with professional industry panelists, a resume writing and job interview workshop, drone exhibits, airplane simulations, and various aircraft tours. Some attendees also toured Western Michigan University's College of Aviation and the Duncan Aviation Maintenance Facility.

Eighty industry exhibitors participated in the event. "I attended the first Women's Aviation Career Symposium at Lansing's Capital Region International Airport," said Megan Turner, an exhibitor for L-3 Harris. "I can't believe how much it has grown."

Keynote speaker, Allison McKay, CEO of Women in Aviation International, spoke on the challenges facing the aviation industry, specifically diversity. Citing the promotion of aviation to women, as well as relying on men as allies in the aviation industry, she advised women to become their own advocates.

"Be your own greatest cheerleader," said McKay. "Whether you want to fly or fix aircraft, or work in Air Traffic Control, there are so many professions in this industry that are in demand right now...whatever you want to do, you can do it in aviation. It's just a matter of finding your niche, your passion, and then pursuing your dream."

The Women's Aviation Career Symposium is an event designed to connect the local aviation community. For additional information and to become involved, contact wacsmichigan@gmail.com. ❑

Aeronautics Report

Wisconsin Bureau of Aeronautics
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Pardon Our Dust: Annual Airport Construction Update

by Hal Davis
WisDOT Bureau of Aeronautics

Hal Davis

In November 2021, Congress passed the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law or BIL. Among many other things, BIL includes a $15 billion investment in the nation's airport infrastructure. No matter where you fly, expect to see lots of new airfield pavement and other airport improvements in the coming years. Here in Wisconsin, early estimates predict that our state will receive an additional $40 million in federal airport funding each of the next five years with opportunities to secure additional funding through funding set aside specifically for airport terminal and air traffic control tower improvements. Combined, Wisconsin airports typically receive around $65 million per year in federal funding, so an additional $40 million is a substantial increase. As you might imagine, both the Wisconsin Bureau of Aeronautics (BOA), and Wisconsin airports, are hard at work preparing for this additional funding with hopes that we might see some BIL-funded projects as soon as this year.

Runway 17/35 reconstruction project at Central Wisconsin Airport.
Courtesy of Becher-Hoppe Associates, Inc.

2021 Recap

Before we look ahead to this year's construction season, let's first look back on 2021. In total, the BOA funded projects at 48 airports last year. Included were 31 construction projects, 20 equipment projects, three land projects, two planning projects, and design work for an additional 15 future projects. Notable projects included the completion of phase-one of a multi-year project to decouple the runway intersection at Central Wisconsin Airport. The first phase involved a complete reconstruction of runway 17/35. At Shawano Municipal Airport, runway 12/30 and the terminal apron were rehabilitated, and the associated lighting was replaced. Similarly, a project to rehabilitate runway 14/32 at Kings Land O'Lakes Airport was also completed. The project also included rehabilitation of additional airfield pavements, replacement lighting, and approach clearing.

New terminal at Wittman Regional Airport.
Courtesy of Rob Dieke Photography

Several phases of multi-year terminal improvement projects were completed at Rhinelander-Oneida County Airport and Dane County Regional Airport in 2021. In Oshkosh, the new terminal building at Wittman Regional Airport was completed just in time to welcome visitors to EAA AirVenture 2021. Finally, Kenosha Regional Airport completed work on a new U.S. Customs building, allowing the airport to become a "port of entry" for international flights.

2022 Outlook

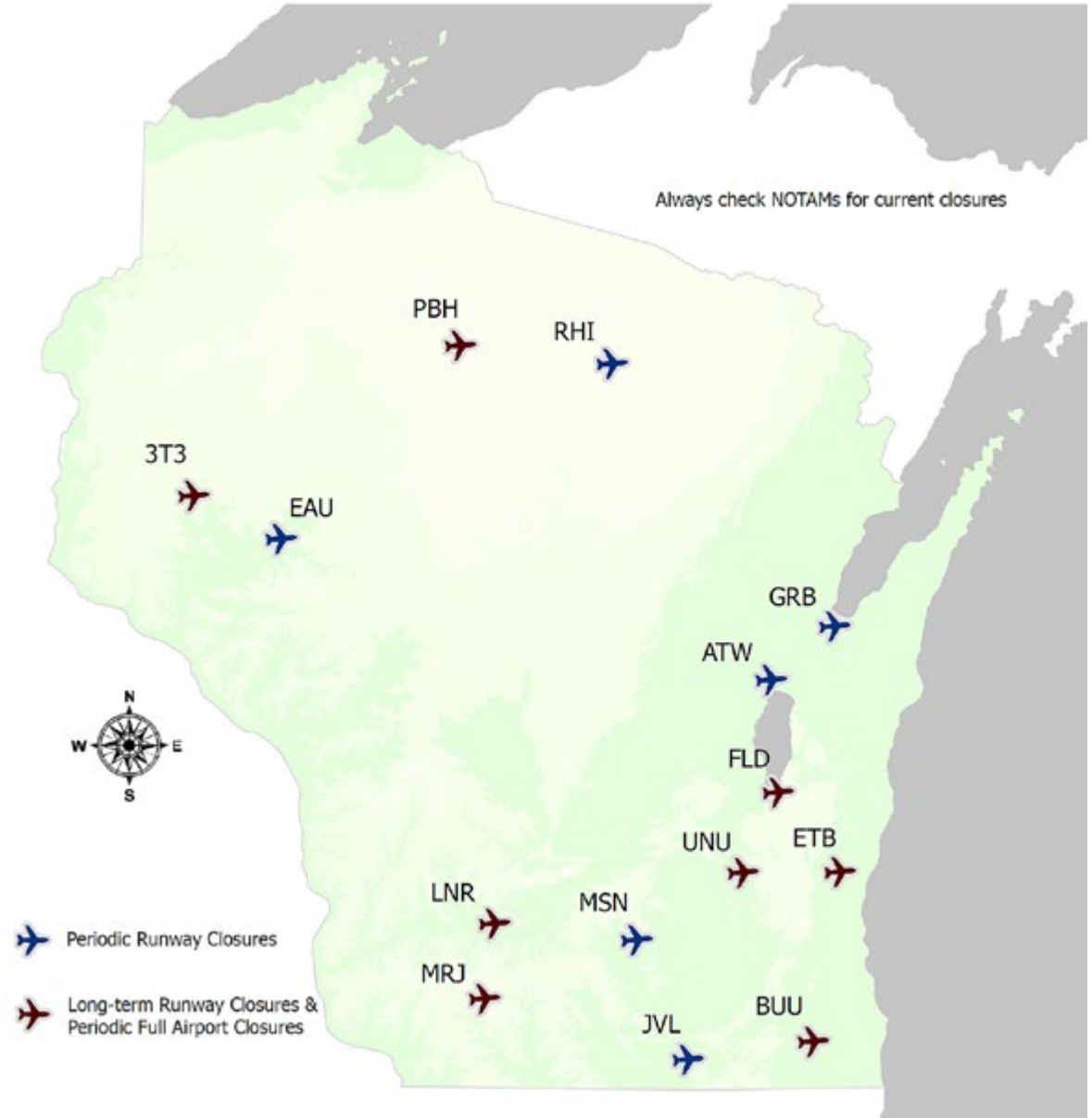
Even though BIL is not yet in full swing, 2022 is shaping up to be a very busy construction year, nonetheless. Major runway projects are planned at Tri-County Regional Airport, Fond du Lac County Airport, Iowa County Airport, West Bend Municipal Airport, Dodge County Airport, and Boyceville Municipal Airport. Other runway rehabilitation projects are planned at Chippewa Valley Regional Airport, Dane County Regional Airport, Rhinelander-Oneida County Airport, Green Bay-Austin Straubel International Airport, Southern Wisconsin Regional Airport, and Appleton International Airport.

For anyone looking to build a hangar in northern Wisconsin, Manitowish Waters, Lakeland, and Cable Union airports will be completing projects to add new hangar lots this year. Kenosha Regional Airport and Burlington Municipal Airport will be doing the same in southern Wisconsin.

As some readers may know, airports which serve air carrier aircraft are required to provide a certain level of aircraft rescue and firefighting (ARFF) capabilities on the field. This year, Chippewa Valley Regional Airport will be renovating and expanding their ARFF facility to better meet their current and future ARFF needs.

Finally, in order to support and further enhance the Federal Aviation Administration's Next Generation Air Transportation System (NextGen), the State Legislature set aside additional funding for NextGen initiatives here in Wisconsin. This upcoming winter, obstruction removal projects at seven airports across the state are expected to begin, which will help to restore and maintain existing instrument flight procedures.

The map accompanied with this article depicts airports with expected runway closures during the 2022 construction season. As always, check Notices to Air Missions (NOTAMs) before your flight to make sure there are no unwelcome surprises. For more information on past and future airport development projects, including the Bureau of Aeronautics' Five-Year Airport Improvement Program, visit the Wisconsin Department of Transportation website at **wisconsindot.gov** and type in "airport five-year plan" in the search bar or call **(608) 266-3351**.



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MINNESOTA AERONAUTICS BULLETIN
www.dot.state.mn.us/aero
The State of Minnesota provides this Technical Bulletin in the interest of Aviation Safety and to Promote Aeronautical Progress in the State and Nation.
DEPARTMENT OF TRANSPORTATION
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Minnesota DOT Office of Aeronautics
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Sharing the VFR traffic pattern: VFR and IFR aircraft at the "Uncontrolled Airport"

by Eric Peltier
Pilot for Aeronautics

We tend to use the term Uncontrolled Airport to describe airports without control towers or airports with non-operating control towers.

The current FAA circular with the regulatory, recommended operations and communication procedures for uncontrolled airports is **AC 90-66B**, "Non-Towered Airport Flight Operations" dated 03/13/18. It incorporates the latest best practices with flight safety as the primary objective. The circular covers a lot of great information including flight patterns and communications for gliders, balloons, parachute jumping and more. You may find that some of this information may be slightly different than what you have read in the Aeronautical Information Manual (AIM).

It's important that pilots stay fresh on the rules mixing of VFR/IFR aircraft, what to expect and how pilots can better communicate. *Any quoted or numbered items below come from the AC 90-66B's circular.*

Every pilot started the same way – first learning to be a VFR pilot. For a majority of pilots, there was never a need to become an IFR pilot. Thankfully we also learned that the basic left-hand pattern (unless published or indicated otherwise) is standard and rooted in all of us. This is a good thing as the traffic pattern flow is about the only thing the FAA really regulates for the pattern under Part 91.

"**8.2.1** *The FAA does not regulate traffic pattern entry, only the flow. For example, an aircraft on an instrument approach flying on the final approach course to land would follow the requirements dictated by the approach procedure. A visual flight rules (VFR) aircraft on a long, straight-in approach for landing never enters the traffic pattern unless performing a go-around or touch and go after landing."*

*"***8.2.1.1** *Traffic pattern entry information is advisory, provided by using this AC or by referring to the AIM and the PHAK. Approaching to land in relation to traffic patterns by definition would mean aircraft in the traffic pattern landing or taking off from an airport. An aircraft not in the traffic pattern would not be bound by § 91.126(b)."*

This does not mean we should do whatever we want. The priority is safety first. Even though entry procedures are not mandatory, published recommendations have been developed as best practices. If other aircraft are present in the pattern, arriving or departing aircraft should use the same runway if possible. There may be exceptions. For example, an aircraft may use a different runway simply because it requires a longer runway or better alignment with winds to meet landing or takeoff performance.

Pilots know that pattern entry is normally from the downwind, 45-to-downwind, and sometimes if no traffic conflicts, directly from midfield crossing (this should not be used when the pattern is congested). Additionally, aircraft may be on a straight-in approach, so always take a good look/listen before turning base to final approach. This is something VFR pilots may not do as often and may not be as expected because of this, but it should be.

"**9.5** ***Straight-In Landings.*** *The FAA encourages pilots to use the standard traffic pattern when arriving or departing a non-towered airport or a part-time-towered airport when the control tower is not operating, particularly when other traffic is observed or when operating from an unfamiliar airport. However, there are occasions where a pilot can choose to execute a straight-in approach for landing when not intending to enter the traffic pattern, such as a visual approach executed as part of the termination of an instrument approach. Pilots should clearly communicate on the CTAF and coordinate maneuvering for and execution of the landing with other traffic so as not to disrupt the flow of other aircraft. Therefore, pilots operating in the traffic pattern should be alert at all times to aircraft executing straight-in landings, particularly when flying a base leg prior to turning final."*

It's also important to note that an IFR aircraft has no priority over any other aircraft in the pattern. The IFR pilot

should communicate with the VFR traffic established in the pattern and use best judgment to sequence with the established traffic for landing. It is very helpful if aircraft announce if they are a full stop, touch and go or planned low approach. This communication can help other aircraft better plan spacing. Any IFR traffic that plans to practice a circle must adhere to the left traffic rule unless otherwise indicated.

Pilots have learned that if you have a radio, it is highly recommended you use it, both to listen and inform. When arriving at an uncontrolled airport, after an ATC controller clears them to the local frequency, the IFR pilot has the same radio procedures as the VFR pilot. The expectation is to monitor the approach from 10 miles out and announce your position 8-10 miles out. Sometimes an IFR pilot forgets that a VFR pilot may not understand what they are saying about the approach they are on without clarification. This is where the IFR pilot can communicate better to bring "situational awareness" to the VFR pilot in the airport area or pattern.

"**9.6.1.** *Non-instrument-rated pilots might not understand radio calls referring to approach waypoints, depicted headings, or missed approach procedures."*

IFR pilots often indicate that they are on a particular approach, but that may not be enough information for a non-IFR-rated pilot to know the IFR pilot's location. It is better to provide specific direction and distance from the airport, as well as the pilot's intentions upon completion of the approach. For example, instead of saying, "procedure turn inbound V-O-R approach 36," it should be "6 miles south … inbound V-O-R approach runway 36, low approach only" or "6 miles south… inbound V-O-R approach runway 36, landing full stop."

Clearer radio calls can significantly improve a pilot's situational awareness of where the aircraft is on an IFR approach. Sometimes IFR pilots forget that many non-towered airports do not require two-way radios. And, after making that great position call, the IFR pilot realizes there's one plane in the pattern that didn't hear the call – as excellent as it was – because the aircraft has no radio. Ultimately, all arriving aircraft, not just IFR, must be especially vigilant for other aircraft in the pattern.

Clear communication is a key element for any pattern and extremely helpful when an IFR aircraft arrives at the airport. Making accurate position reports, using the published airport name and identifying your runway with intensions all can help paint a better picture for aircraft in the pattern.

Avoid confusing language:

"**10.4 *Confusing Language.*** *To avoid misunderstandings, pilots should avoid using the words "to" and "for" whenever possible. These words might be confused with runway numbers or altitudes. The use of "inbound for landing" should also be avoided. For example, instead of saying, "MIDWEST TRAFFIC, EIGHT ONE TANGO FOXTROT TEN MILES TO THE NORTHEAST, INBOUND FOR LANDING RUNWAY TWO TWO MIDWEST," it is more advisable to say, "MIDWEST TRAFFIC, EIGHT ONE TANGO FOXTROT TEN MILES NORTHEAST OF THE AIRPORT, LANDING STRAIGHT IN RUNWAY TWO TWO, MIDWEST," so it does not confuse runway 4, runway 22, or the use of an IAP on arrival, avoiding using two/to and four/for."*

A specific phrase the FAA frowns upon is the ***"any aircraft in the area, please advise."*** Every pilot is expected to advise, so it is unnecessary.

Overall, VFR pilots should expect the same of IFR traffic as any other visual traffic in the VFR pattern. IFR pilots will enter the traffic flow by normal practices, but due to ATC efficiency with no intention of entering the pattern, may just be on a straight-in approach, landing to a full stop. IFR pilots should communicate with other aircraft to sequence for landing and not expect to simply jump in front of an aircraft established in the pattern. Also, IFR pilots should expect good pattern procedures and radio calls for anyone established in the pattern or the area. With both parties communicating well and flying as expected, air traffic flow should be seamless for the aircraft to sequence for landing.

Of course, every pilot has witnessed something they thought was potentially the wrong procedure or has felt "why are they doing that?" at one time or another. It's important to remember that there may be training needed, or an operational need for an aircraft to use a different runway and correcting another pilot on the frequency while flying is not the time to discuss it, **unless it is safety critical.** Pilots may block a critical radio call. It is good practice to wait until after landing to have a discussion at groundspeed zero if anyone feels it is necessary.

Reading the AC 90-66B circular to gather this small bit of information is a great review for uncontrolled airport approaches and landings. The entire circular can be found online at faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentid/1032988. ❑

New Minnesota airport, seaplane base and travel guides now available as ForeFlight Content Packs

by James McCanney
Aviation Representative & Pilot for Aeronautics


James McCanney

MnDOT Aeronautics added a new feature to the Minnesota Airport Directory and Travel Guide three years ago. We developed a ForeFlight Content Pack and made it available for anyone to download and add to their ForeFlight app. The MN Airport Directory Content Pack takes everything great about the MN Directory and Travel Guide and makes it accessible on your iPad via ForeFlight.

This year, we separated the seaplane bases from the main Content Pack, to create a the new MN Seaplane Base Directory. And, we added a third content pack named MN Seaplane Water Depths. The water depths Content Pack shows water depth contour lines for many Minnesota lakes.

If you're unaware of our printed Airport Directory and Travel Guide, it provides Minnesota public airport and seaplane base information, along with some information about local attractions near Minnesota's public airports.

The Content Packs and printed directory typically include a map of the airport layout with runway numbers and length/width. The "travel guide" portion includes local attractions, ground transportation information, lodging, restaurants, underwing camping information, nearby campgrounds, and airport events. The seaplane base directory includes all the MN public seaplane bases and travel information. Some of the seaplane base diagrams in the MN Seaplane Base Directory include contour lines of lake depth data and terrain data obtained from the DNR.

The next time you're thinking of flying to or through Minnesota, and you're a ForeFlight user, please download our new content packs at www.dot.state.mn.us/aero/airportdirectory/index.html.

The MN Seaplane Water Depths Content Pack expands on the contour lines included with the seaplane base pages. It shows water depth contour lines for every lake surveyed by the Minnesota Department of Natural Resources, and covers most of the lakes in Minnesota. MnDOT used the DNR's lake depth data for Minnesota lakes and created a layer pilots can download and push to ForeFlight. Pilots can turn on/off the layer, like any other layer in Forelfight (obstacles, traffic, radar). The contour lines are geo-referenced. As ForeFlight users move the map around, and zoom in and out, the water depth contour lines adjust. Having access to this data in ForeFlight can help pilots during flight planning, and in the air.

To download and start using the MN Airport Directory Content pack, visit www.dot.state.mn.us/aero/airportdirectory/index.html. That web page also includes a link to ForeFlight's website, which provides various ways to install the content pack. The easiest way for most people to install one of the MN Content Packs is to email it to yourself.

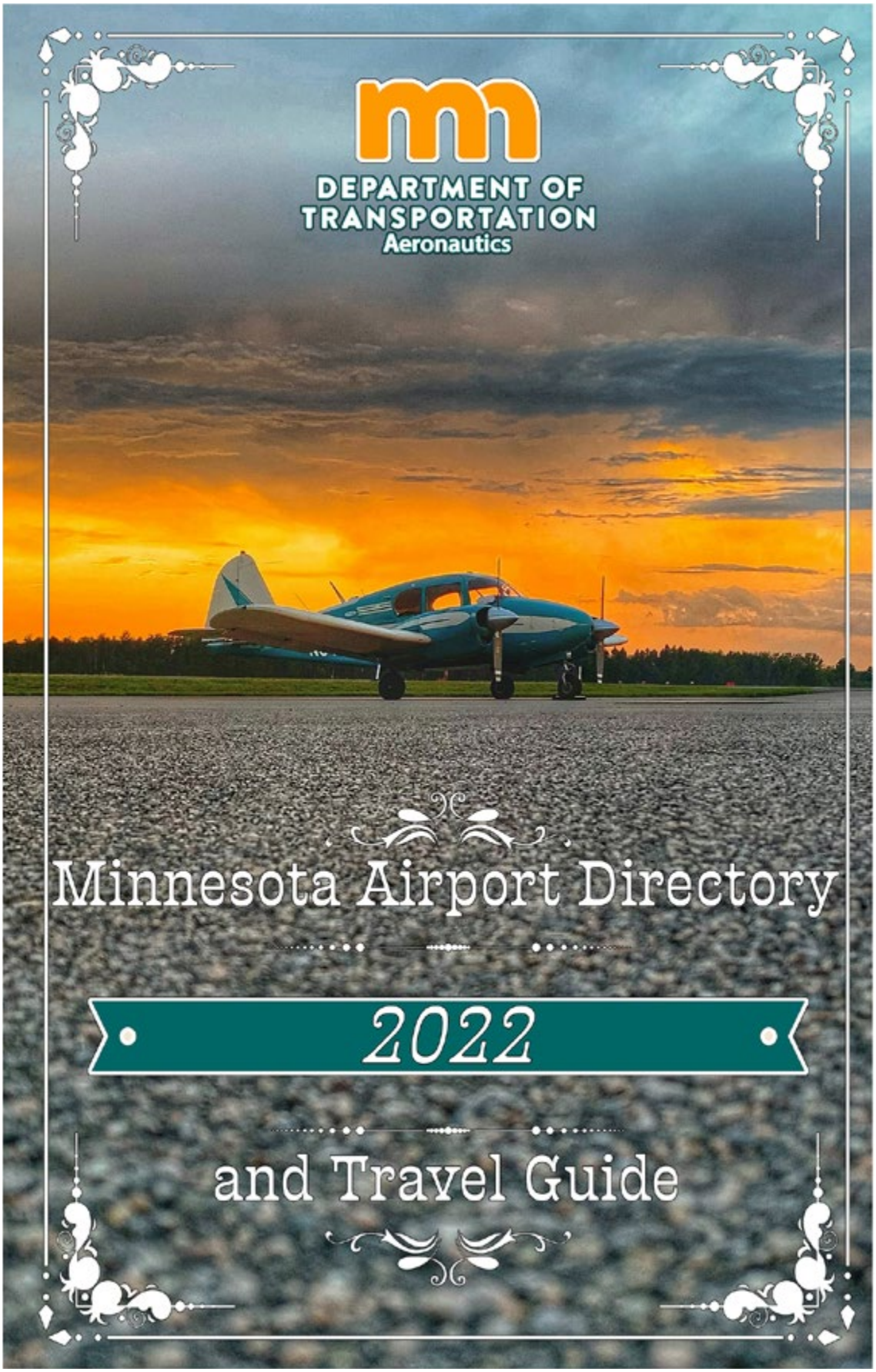
The MN Content Packs can also be downloaded on a computer and sent as an attachment to yourself or others – just open mail on your iPad, tap, and hold the email attachment. Once the "share" option appears, scroll to find ForeFlight and select "copy to ForeFlight." This will bring the Content Pack into the More > Custom Content part of ForeFlight. From the Custom Content, users can open the MN Airport Directory Content Pack within ForeFlight and view all of the content. Two of the best ways to use the Content Packs are by searching for a MN airport, or finding one via the map. Once on the airports page, go to procedure, and you'll see MN Airport Directory. If it isn't highlighted, tap the MN Airport Directory, and the directory page will be available to tap (right-hand side). Clicking on the directory page will open a new "Plates" page and display the directory, just like an approach chart. Swipe to display the second page.

<subhead>Upcoming updates

MnDOT plans to make all phone numbers and email addresses hyperlinks as soon as possible. We would also like to update the MN Content Packs throughout the year, and keep all information as current as possible. To accomplish that, we'll need the help of pilots who use those airports and these content packs. Pilot feedback is the quickest way for MnDOT to learn if a restaurant or hotel has closed, or if there is something new and exciting at an airport or a city. If you hear of something new, or ever visit a new place while out flying, please let us know, and we will gladly add it to the list of items in the directory. We want this Directory and Travel Guide to be helpful to pilots, and also to the airports and the cities nearby.

As more pilots continue using the iPad and ForeFlight app, we hope to find more ways to improve our digital MN airport and seaplane directories. The MN Content Packs give us a better chance to grow the travel guide and add enhanced information that we don't have space for in the paper version.

MnDOT wants to know your thoughts and suggestions on how this product enhances your flight, what we could do to improve it, and how we might help make your travel experience in our state more enjoyable. Any feedback, suggestions, comments or new information may be sent to james.mccanney@state.mn.us.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Minnesota Airport Directory
2022
and Travel Guide

Wally Funk Named the Recipient of the 2021 Stinson Trophy

Wally Funk emerges from Blue Origin's New Shepard space capsule in July 2021. *Blue Origin Photo*

WASHINGTON, DC (February 17, 2022) – The National Aeronautic Association (NAA) has announced that Wally Funk has been selected as the recipient of the 2021 "Katherine and Marjorie Stinson Trophy."

The Stinson Trophy was created in 1997 by NAA to honor the accomplishments of two sisters - Katherine and Marjorie Stinson. These sisters were among the first 11 American women to be certified as pilots through the Aero Club of America (the predecessor of NAA). Their flying school helped numerous U.S. and foreign pilots to earn their Aero Club licenses, the precursor to FAA pilot certificates. The trophy recognizes a living person for "…an outstanding and enduring contribution to the role of women in the field of aviation, aeronautics, space, or related sciences."

Funk is being recognized for "… blazing trails for women in aviation and spaceflight and inspiring the next generation of aerospace professionals as a pioneering member of Mercury 13, and as a flight instructor, air safety investigator, and the oldest woman to fly in space."

Funk took her first flight lesson at the age of 9. When she was 16, she began flight school at Stephens College in Columbia, Missouri, while studying for an Associate of Arts Degree. Funk flew with the school's "Flying Susies" student aviation club and ranked the top flyer in her class. She then continued her studies and flying at Oklahoma State University (OSU) where she was a member of the "Flying Aggies." Her competition performance earned top awards from OSU, and she graduated with a Bachelor of Arts Degree in Education and numerous certificates and ratings. After graduation, Funk worked as a flight instructor at Fort Sill military base in Oklahoma.

Funk set her sights on space in 1959 after learning about the Lovelace Woman In Space Program, a research project by the doctor who evaluated NASA's Mercury astronauts. Funk volunteered for Lovelace's invasive and challenging panel of 87 experiments testing women's fitness for spaceflight. At 20 years old, she was the youngest participant and one of the top performing candidates. Funk was one of the 13 women who completed the program and one of just three who underwent psychological testing in Oklahoma City. This group of volunteers came to identify as the "Fellow Lady Astronaut Trainees" and the "Mercury 13." Ultimately, Lovelace's unsanctioned program ended because the United States chose not to train women while competing against the Soviet Union to be the first country to land on the Moon.

It would be years until NASA seriously considered women's capacity to contribute to space exploration, but Funk's superior performance in the Lovelace program paved the way for women to access astronaut careers.

Funk went on to dedicate decades of her life to flight safety and instruction. As a flight instructor, she soloed more than 700 students in numerous aircraft. Funk was the first woman to serve as an air safety investigator with the National Transportation Safety Board and a specialist in the Systems Worthiness Analysis Program at the Federal Aviation Administration.

Building on her passion for education and experience as an air safety investigator, Funk developed her own aviation safety course, which she enthusiastically delivered to professionals across the country. She also invented the "Wally Stick," a device for detecting damage to aircraft propellers.

In July 2021, Funk finally achieved her long-deferred dream of spaceflight as a member of the first crewed suborbital mission of Blue Origin's New Shepard capsule. She made history as the only "Fellow Lady Astronaut Trainee" to fly in space. At the time, she was also the oldest person in space (William Shatner, age 90, broke that record in October 2021). She remains the oldest woman ever to fly in space. Through this mission, Funk came to be known – and beloved – by new generations as a vanguard of an exciting new chapter of space exploration and tourism in space.

"Funk has made an indelible impression on the history of aviation and spaceflight through a lifetime of hard work, skill, and can-do spirit," expressed Emily Margolis, curator at the Smithsonian's National Air and Space Museum, who nominated Funk for this award. "Her work as a flight instructor and air safety investigator and instructor has improved aviation for all. As an astronaut testing volunteer in the 1960s, Funk laid the foundation for women to travel in space, a dream she finally realized in 2021. Funk is certainly a trailblazer worth celebrating."

"It will be an honor to present the Katherine and Marjorie Stinson Trophy to Wally Funk," said NAA President Greg Principato. When I was a kid in the 1960s, I asked my mom if women could be astronauts. She assured me they could and would. What neither she nor I knew at the time was that Wally had already done all that was required, and more. Wally blazed a trail that has inspired women and girls (and an awful lot of men) for many years since. When you see her at conferences, she is surrounded by young women and girls who she has inspired. For her tireless efforts over more than six decades, Wally is most deserving of this award."

Members of the Selection Committee were Lt Col Dana Bochte, 2018 Stinson Trophy recipient; Capt. Julie Clark, 2008 Stinson Trophy recipient; Rebecca Lutte, University of Nebraska, Omaha, and NAA Board of Directors; Yvette Rose, Cargo Airline Association and NAA Board of Directors; Melissa Sabatine, Past President, Aero Club of Washington, and NAA Board of Directors; and Patty Wagstaff, 2002 Stinson Trophy recipient.

The Stinson Trophy was presented on March 17, 2022, at the 33rd Annual International Women in Aviation Conference in Nashville, Tennessee.

The National Aeronautic Association is a non-profit membership organization devoted to fostering opportunities to participate fully in aviation activities and to promoting public understanding of the importance of aviation and space flight to the United States. NAA is the caretaker of some of the most important aviation awards in the world and certifies all national aviation records set in the United States (www.naa.aero). ❑

Letters To The Editor

Hi Dave:

Thanks to the advertisement I ran in *Midwest Flyer Magazine* to sell my island on Lake of the Woods, within 3 days of the magazine going out. I received multiple offers, with the sale concluded within one week. Now that's effective advertising!

Ray Rubin
Eagle River, Wisconsin

Bi-State Development Names New Director For St. Louis Downtown Airport

Bi-State Development is excited to announce Sandra Shore as the new director to lead St. Louis Downtown Airport operations starting February 28. The airport is the busiest general aviation airport in Illinois and the third busiest airport overall in the state after O'Hare and Midway. St. Louis Downtown Airport contributes more than $422 million in annual economic benefits to the local economy and is located on 1,000 acres in St. Clair County in Cahokia Heights and Sauget, just across the Mississippi River from the Gateway Arch in St. Louis, Missouri.

Sandra Shore

Shore is currently the airport director at Quincy Regional Airport in Quincy, Illinois, where she has held the position since 2018. Prior to that, Shore was the airport manager at Floyd W. Jones Lebanon Airport in Lebanon, Missouri. Her experience ranges from general aviation and fixed base operation to Part 139 certified air service airports. During her time at Quincy Regional Airport, she managed more than $7 million in federal Airport Improvement Funding, secured an additional $18 million in funding, and has programmed another $17 million in airport funding over the next two years. Shore replaces Erick Dahl who served as director of St. Louis Downtown Airport for nearly 8 years before leaving last fall to pursue another opportunity.

"We are pleased that Sandra will join our team to lead our airport operations into the future. With St. Louis Downtown Airport being located on 1,000 acres of prime real estate practically in the shadow of the Gateway Arch, we welcome her fresh view on generating new business and new tenants which will benefit St. Clair County and our region," said Taulby Roach, President and CEO of Bi-State Development, the organization that owns and operates the airport.

"My passion is capital and business development. I welcome the opportunity to join the Bi-State Development team and look forward to exploring new capital and business development opportunities that could bring new aviation-related jobs and new partnerships to St. Louis Downtown Airport and St. Clair County," Shore said (**stlouisdowntownairport.com**). ❑

Aerospace Center For Excellence & Sun 'N Fun Aerospace Expo Select New President/CEO

LAKELAND, FLA. – The Aerospace Center for Excellence (ACE) and Sun 'n Fun Aerospace Expo (SnF) board of directors has named Gene Conrad their new President/CEO commencing April 11, 2022.

Gene Conrad

Conrad, who was born in Oshkosh, Wisconsin, and resides in Lakeland, Fla., has been the Airport Director of Lakeland Linder International Airport since 2010. A graduate of Ohio State University with a degree in Aviation Management, his previous positions include Deputy Director, Marketing Air Service Development, Branson Airport, Hollister, Missouri; and Air Service Coordinator and Marketing Manager, Dayton International Airport, Dayton, Ohio.

During his tenure at Lakeland Linder International Airport, Conrad managed a $200M capital improvement

program, negotiated a 50-year lease with Amazon Air Cargo and led the successful relocation of the National Oceanic and Atmospheric Administration (NOAA) Aircraft Operations Center to the airport.

Rick Garcia, President/CEO of Gulf Coast Avionics, and Chairman of the Aerospace Center for Excellence Board of Directors, said: "Gene's track record and success here at Lakeland Linder International Airport makes him the best choice for the future of the Aerospace Center For Excellence and the Sun 'n Fun Aerospace Expo."

Harley Richards, Sun 'n Fun Board Chairman, stated "The entire board of directors is extremely excited to have Gene lead ACE/SnF into the next chapter on our quest to provide unmatched career opportunities for young men and women and drive the Sun 'n Fun Aerospace Expo to new heights of success."

Having volunteered at EAA AirVenture for over 34 years, Gene is well prepared to acclimate into the volunteer culture of a non-profit aviation organization. He is set to officially join the team on March 7, 2022, to start the transition to be the next CEO following the completion of the 2022 Sun 'n Fun Aerospace Expo.

"After working closely with Gene as the Airport Manager over the last 10 years, I can state without reservation that his heart and passion has been to ensure that the future of ACE and SnF was protected for future growth. I am looking forward to seeing ACE/SnF reach new heights of success under his leadership," stated Lites Leenhouts, current President/CEO of ACE/SnF.

When asked his thoughts on this new challenge, Gene stated, "I am both humbled and honored to be given the opportunity to lead such an incredible organization that just within the last several years has evolved from not only a major aviation expo, but now a nationally recognized Aerospace Youth Education Complex, educating thousands of students annually. I am anxious to join the team and share in my passion for aviation." ❑

Becher-Hoppe Associates, Inc. Announces Internal Transition of Ownership!

(L/R): Jed Mattmiller, Matthew Graun, Karl Kemper, Archie Becher and Randal Van Natta.

As of January 1, 2022, Randy Van Natta and Archie Becher have transitioned ownership of Becher-Hoppe's business and real estate holdings to current employees Karl Kemper, Matthew Graun, and Jed Mattmiller.

"We are excited to announce the fourth generation of internal ownership transition at Becher-Hoppe. Archie and I are confident in the new ownership team's leadership abilities to continue Becher-Hoppe's legacy of partnership and outstanding service with our clients," said Randy Van Natta, past president.

"We appreciate the trust clients have placed in Becher-Hoppe since 1954, and we're eager to continue growing partnerships with clients and improve communities," said Karl Kemper, Becher Hoppe president.

KARL KEMPER, President and Project Manager. Karl primarily serves on airport improvement projects, and has experience with municipal streets, utilities, corporate development sites, DOT highways, pedestrian paths, bridges, and landfills. Karl is an instrument-rated private pilot, which allows him to efficiently serve clients throughout the state, as well as understand airport projects from a user's perspective.

MATTHEW GRAUN, Vice President and Resource Manager. Matt will continue to manage staffing, scheduling, and IT; in addition to providing industry leading CAD design services on numerous civil engineering project types. Matt is also a commercial rated drone pilot, which Becher Hoppe uses for surveys, photogrammetry, and photography on their projects.

JED MATTMILLER, Partner and Project Engineer. Jed performs highly technical designs for runways, airport navigational aids, airspace evaluations, airport layout plans, pipe networks, roadways, sites, and many other civil design applications. Jed began his career as an intern with Becher Hoppe on the survey crew, and his survey fundamentals are still solid.

RANDY VAN NATTA, Senior Consultant. Randy previously served as president and project engineer, primarily on airport and municipal projects. Randy will continue with Becher Hoppe as a senior consultant while continuing to serve clients and helping with the ownership transition. Randy began his career with Becher Hoppe in 1981.

ARCHIE BECHER, Senior Consultant. Archie previously served as vice president and project engineer, primarily on municipal and dam projects. He will continue with Becher Hoppe as a senior consultant while continuing to serve clients and helping with the ownership transition. Archie's grandfather, Archie Sr., was a founder of Becher Hoppe in 1954. Archie began his career at Becher Hoppe in 1992.

Becher-Hoppe provides consulting engineering and survey services throughout Wisconsin including airport, highway and municipal engineering; real estate appraisal and acquisition services; and aerial drone photogrammetry services. Check out Becher Hoppe's services at **www.becherhoppe.com**. ❑

Honda Aircraft Founder Retires Leaving A Legacy Behind

Honda Aircraft Company President, CEO and Founder, Michimasa Fujino, retired effective April 1, due to reaching the corporation's mandatory retirement age of 62.

Fujino designed, engineered, and built the Honda HA-420 HondaJet, the clean-sheet aircraft design that introduced innovations in aviation technology, including the Over-The-Wing Engine Mount (OTWEM) configuration, Natural Laminar Flow (NLF) nose and wing, and composite fuselage. The HondaJet is the first, and only, business jet to include these technologies.

During 2021, Honda Aircraft Company continued development with two major announcements: the ***HondaJet Elite S***, honored with a "Top Flight Award" as best new business jet from Aviation International News, and the ***HondaJet 2600 Concept***, Honda Aircraft's proposal for the next generation business jet.

The HondaJet Elite S is the fastest, highest-flying jet with the greatest range of any aircraft in its class. The aircraft is also powered by the GE Honda Aero Engine HF120 and features an ergonomically designed cockpit and a highly customized Garmin® G3000 avionics suite. It also remains significantly more fuel efficient, and emits less greenhouse gases, than all other similarly sized twin-engine business jets.

The HondaJet 2600 Concept jet inherits Honda Aircraft's aeronautical breakthroughs, including the OTWEM configuration, NLF technology, and carbon composite fuselage. Through the further refinement of these foundational HondaJet technologies, the HondaJet 2600 Concept will be the world's first light jet capable of nonstop transcontinental flight with a range of 2,625 nautical miles.

The 2600 has a quiet and spacious cabin suited for long-range travel, can seat up to 11 occupants, and aims to deliver unparalleled fuel efficiency with a max operating altitude of 47,000 feet. The aircraft will dramatically reduce carbon emissions with up to 20% better fuel efficiency than typical light jets and is over 40% more fuel efficient than a mid-size jet during a typical mission.

The global presence of the HondaJet further increased when it received Thailand type certification, marking 14 countries with HondaJet certification. Honda Aircraft Company's sales and service footprint now spans North America, Europe, Latin America, Southeast Asia, China, the Middle East, India, Japan, and Russia.

Additionally, the FAA recently awarded Honda Aircraft Company the "Diamond Level AMT Employer Award," the highest level in the William (Bill) O'Brien Aviation Maintenance Technician Awards program, in recognition of the skill and professionalism of Honda Aircraft's maintenance technicians.

Honda Aircraft Company celebrated several milestones recently, including delivery of the 200th HondaJet in late December 2021 since the first delivery in December 2015. The worldwide HondaJet fleet also surpassed 100,000 flight hours in January 2022.

Michimasa Fujino

With all of these accomplishments, it is no wonder the American Institute of Aeronautics and Astronautics (AIAA) honored Fujino with its Reed Aeronautics Award in 2021 "for the invention of advanced aerodynamic and structural techniques."

The award is named after Dr. Sylvanus A. Reed, an aeronautical engineer, designer, and founding member of the Institute of the Aeronautical Sciences in 1932. Reed was the first person to develop a propeller system composed of metal rather than wood. His aluminum alloy propeller gave Jimmy Doolittle's R3C-2 aircraft the speed it needed to win the 1925 Schneider Cup race and brought the inventor much credit and many rewards. Past recipients of the award include Clarence L. Johnson for the SR-71, Ben R. Rich for the F-117, Preston A. Henne for the MD-80 and Gulfstream aircraft, and Elbert L. Rutan for the Voyager.

"I was very surprised, honored, and very grateful to be recognized with the 2021 Reed Aeronautics Award," said Fujino. "I've worked on airplane design for the past 35 years - it has been challenging, but also very exciting. On behalf of Honda Aircraft Company, I'd like to express my sincere

The HondaJet as seen in 2006.

appreciation to everyone who supported the HondaJet project."

Honda Aircraft Company is a wholly owned subsidiary of American Honda Motor Co., Inc. Founded in 2006, Honda Aircraft's world headquarters is in Greensboro, North Carolina, the state known for the Wright brothers' historic flight at Kitty Hawk.

The challenging spirit upon which Mr. Soichiro Honda founded Honda Motor Co., Ltd. is alive today as Honda Aircraft fulfills one of Honda's longstanding dreams to advance human mobility skyward.

The first flight of the first production HondaJet.

HondaJet 2600 Concept

Hideto Yamasaki has assume leadership of Honda Aircraft. Yamasaki has held numerous positions in the automotive side of Honda, including general manager in Turkey and more recently as a vice president of American Honda Motor Co. Inc. (https://www.hondajet.com/). ❑

NBAA Thanks Sen. Inhofe For His Service, Dedication To General Aviation

WASHINGTON, DC – National Business Aviation Association (NBAA) President and CEO Ed Bolen applauds Sen. Jim Inhofe (R-OK) for his decades of public service and his tireless support of the general aviation industry after the senator announced he will retire from the U.S. Senate, effective Jan. 3, 2023.

Sen. Jim Inhofe

"As the longest serving federal elected official in Oklahoma history, the lasting impact of Sen. Inhofe's accomplished political career – especially for the betterment of the nation's aviation infrastructure – is testament to his dedication to public service and commitment to principles that will continue to shape this country for years to come," said Bolen. "The general aviation community is proud to call Sen. Inhofe not just a friend, but a champion."

As an accomplished aviator, Sen. Inhofe brought a deep appreciation and understanding of the general aviation industry to crucial policy debates on Capitol Hill. Sen. Inhofe's passion for aviation has forged significant gains for the sector, including the groundbreaking legislation that led to the direct passage of the General Aviation Revitalization Act, which was passed during his time in the House of Representatives.

He was a leader in advancing legislation to reform the medical certification process for recreational pilots, ultimately enacted in the 2016 FAA Reauthorization bill.

Following the FAA's famous decision to revoke aviation icon Bob Hoover's medical certificate without cause, Sen. Inhofe introduced legislation giving FAA certificate holders the ability to immediately appeal emergency revocations to the National Transportation Safety Board. The bill was enacted as part of the 2000 FAA Reauthorization Bill.

Over the course of his career, Sen. Inhofe has also introduced and supported legislation that strengthened pilots' legal rights, raised the retirement age of commercial pilots to 65 from 60, and assured the security and modernization of the nation's air traffic management system.

Sen. Inhofe has championed legislation that ensures general aviation will continue connecting communities of all sizes and remain a vital contributor to the nation's economic prosperity, including through his work as a key proponent of legislation creating aviation workforce grants – programs that were successfully incorporated in the 2018 FAA Reauthorization Act. ❑

NATA Recognizes Senator Inhofe's Service & Support of Aviation Businesses

WASHINGTON, DC (March 2, 2021) – The National Air Transportation Association (NATA) thanks Senator James Inhofe (R-Okla.) for his decades of public service and his steadfast support of the general aviation industry, following the Senator's announcement he will retire in January 2023. An avid aviator, Senator Inhofe has been a stalwart champion for general aviation in the U.S. Congress since he won his seat in 1986, first in the House of Representatives and for the past 28 years in the Senate.

"On behalf of aviation businesses, NATA thanks Senator Jim Inhofe for his extensive service and honors his legacy as one of our industry's greatest proponents. Senator Inhofe's skill as a legislator, and his keen understanding of the value that aviation provides to rural America, helped shape, maintain, and safeguard the vibrant general aviation landscape that we enjoy across the nation today. The Senator and his staff worked hand-in-hand with aviation stakeholders, addressing our industry's needs—from infrastructure to workforce—every step of the way. As we wish the Senator all the best in his much-deserved retirement, we recognize his departure will leave a tremendous void in our nation's capital," stated NATA President and CEO Timothy Obitts. ❑

FAA Administrator Resigns

WASHINGTON, DC – Steve Dickson, who was nominated in August 2019 by President Donald Trump to be the FAA Administrator for a five-year term, stepped down March 31, 2022. A replacement has not yet been named.

Steve Dickson

Issues which Dickson faced during his tenure have included the effects of the Covid-19 pandemic on the air transportation industry, a slow-down/then resurgence in commercial air travel, having to deal with disruptive airline passengers and establishing a "zero-tolerance" policy, and in recent months, working with general aviation groups in seeking a lead-free replacement for 100LL avgas.

Dickson also oversaw the return of the Boeing 737 Max jet to service following two fatal crashes abroad, which grounded the aircraft worldwide until an acceptable fix could be made. Before his appointment, Dickson was a pilot and the Senior Vice President of Flight Operations with Delta Air Lines. In 2020, he flew the Boeing 737 Max jet himself on test flights before it was returned to passenger service. Dickson started his flying career as an officer in the U.S. Air Force flying F-15 fighters and graduated from the Air Force Academy in 1979. ❑

Aviation Groups Commit To Lead-Free Aviation Fuels Transition By 2030

WASHINGTON, D.C. – Leaders of aviation and petroleum groups have committed to an initiative laying out a clear plan to transition piston-engine aircraft to lead-free aviation fuels by the end of 2030.

Announced at the National Press Club in Washington, D.C., February 23, 2022, the Eliminate Aviation Gasoline Lead Emissions (EAGLE) initiative calls for an industry and government partnership to expand and accelerate the actions and policies necessary for a viable high-octane unleaded replacement for the current 100 octane low-lead aviation gasoline (100LL), without compromising the existing U.S. transportation infrastructure system, aviation safety, and the economic and broader public benefits of general aviation.

The FAA hosted an industry stakeholder roundtable meeting in November 2021 to discuss a strategic plan toward an unleaded avgas future, culminating in the establishment of the EAGLE initiative, which is structured around four key pillars – Regulatory and Policy, Unleaded Fuel Testing and Qualification, Research and Development, and Business Infrastructure and Implementation. These activities, which will require full government support, provide the foundation toward safe unleaded aviation fuels for piston-engine aircraft. Industry stakeholders and the FAA will begin working on the EAGLE initiative right away with a partnership symposium, to define a detailed work plan. Outgoing FAA Administrator Steve Dickson pledged the FAA's support of the initiative's collaborative partnership.

Groups committed to the EAGLE initiative include the Aircraft Owners and Pilots Association (AOPA), American Association of Airport Executives (AAAE), American Petroleum Institute (API), Experimental Aircraft Association (EAA), General Aviation Manufacturers Association (GAMA), Helicopter Association International (HAI), National Air Transportation Association (NATA), and National Business Aviation Association (NBAA).

"While the industry has a shared vision of a lead-free aviation future, the transition must be done in a smart and safe way, and in a manner that works for the entire general aviation fleet," said Mark Baker, President and CEO of AOPA. "Joining together in a broad coalition to reinforce our commitment, and outlining the plan to get there, is a very positive step forward. We look forward to making good progress under the EAGLE banner." ❑

Predicting the future

by Rick Braunig


Rick Braunig

Every once in a while, I feel like I can see into the future and then I think about predictions that failed to materialize like the Small Aircraft Transportation System (SATS) that NASA was promoting. SATS was supposed to reduce the spoke-to-hub-to-spoke flights by going directly from one spoke to another, turning two flights into one and reducing traffic at the hubs that were reaching full capacity at the time. You can still find information about it online.

Then there is the boom in Light Sport Aircraft (LSA) that was supposed to make personal aircraft affordable. The FAA created a new category of aircraft and a new certification process to reduce the costs of bringing these aircraft into the market. It was predicted these new aircraft would be filling our skies. I was involved in writing new rules in Minnesota to support the development of LSA airports with shorter runways and smaller surfaces so that these aircraft would have places to hangar that allowed them to avoid the traffic mix at existing airports. Though no new LSA airports developed, I still believe it is better to prepare for possible future outcomes than to reacting to them later.

One interesting development is the growth in the "drone industry." It's been years now since the number of registered drones outgrew the number of registered manned aircraft. Now there are predictions of a growth in both the size and uses of drones. Companies have talked about delivering packages with drones for some time now and it appears the technology and the regulation is starting to catch up with that vision. The FAA is creating rules that allow for Beyond Visual Line of Sight (BVLOS) operation of drones that will allow drone operators to send their vehicles over the horizon. The technology has been developed to allow them to fly autonomously (without a pilot controlling their course) and a system of unmanned air traffic management (UTM) is being developed. This is amazing, considering the technical challenges. See and avoid is now sense and avoid, and the UTM is not run by the FAA but provided by others called UAS Service Suppliers (USS).

Many pilots and airport operators think these drones need to avoid the airspace around airports, but with the adoption of Part 107 of the Federal Aviation Regulations (14 CFR Part 107), commercial drone operators were required to get a remote pilot certificate. Now remote pilots can fly around and over airports, unless there are airspace restrictions. Even then, there is an automated process for getting airspace clearance through Class B, C, D and surface E called LAANC (Low Altitude Authorization and Notification Capability), which provides near time clearance to drone operators. Recent changes now allow nighttime flights and flights over people, as long as the drone and operator meet specific requirements.

Where model aircraft and model rocketry were not recognized as aeronautical activities in the past, the FAA has treated drones as aircraft by requiring registration of the drones and licensing of pilots for all but recreational flyers. The case can then be made that they have a right to fly from public airports. Helicopters at airports have to avoid fixed-wing aircraft and in the Part 107 rules, drones are required to give way to all aircraft. There is nothing in the regulations that prohibit drones from operating at airports, and as they grow in size, airports may be the appropriate place for them to operate. For instance, fixed-wing drones used for missions such as pipeline patrol may require runways for takeoff and landing. Airport operators need to be ready for the inclusion of drones into the airport environment.

Though there are likely to be examples of airports that have safely integrated drones, I don't think it will be a case of one size fits all. Drones vary in their capabilities. Some can lift vertically like a helicopter, but others may require hundreds of feet for takeoff. Wingspans and tire sizes are likely to vary as well. Airports are not all the same either. Some have only one runway, some have more open space than others and then there is the mix of aircraft speeds and the level of activity at the airport. The knowledge level of the pilots, both manned and unmanned, will also be a factor as both become familiar with the operational characteristics of the other.

Drones are growing in size, and in some other countries, they are already being used to transport people which is currently referred to as Advanced Air Mobility (AAM). The technology and the rules for carrying passengers in the U.S. are currently being developed and they too are moving forward at a remarkable pace. Several manufacturers have developed the vehicles including companies like Airbus and they continue to refine both the vehicles and the business models for their use. Right now, they are limited to two to four passengers traveling short distances, most using vertical takeoff and landing much like helicopters. There is a plan to use these vehicles in Los Angeles for the 2028 Olympics. Places like L.A. and New York already have heliports in the community which is a good foundation for the introduction of AAM.

Currently small drones (under 55 pounds) are restricted to altitudes below 400 feet or within 400 feet of a tall structure, but that is also being challenged. Work is underway to

develop the technology that allows drones to operate in all airspace, interacting with air traffic control, just as a manned aircraft does.

This really does feel like predicting the future and that future may not come, but I think it is wise to make preparations.

Are we prepared for the integration of drones at our airports? Airports and heliports have airspace requirements for the safety of the aircraft and the surrounding environment. Though currently small drones takeoff anywhere, what safety requirements will be needed at launch sites as they grow in size and weight to protect the public? Who should develop those standards and how will they be enforced?

My questions come from decades of work in aviation and with airports at the state level. Don't misunderstand me… I wouldn't stop the growth in the drone industry if I could. The technologies being developed will improve safety for all of aviation. In an industry where weight is so important, the drone industry has developed smaller and lighter radars, and advanced the capabilities of electric motors. We see small aircraft manufacturers incorporating auto-land technology and Bell is developing a helicopter with an electric tail rotor(s) that will make the aircraft lighter and quieter.

The future is hard to predict and sometimes predictions don't turn into reality, but watching the technology develop and seeing the FAA moving at a speed faster than I've seen in my lifetime makes me think a change is coming. Having an awareness of what that change might look like helps us to prepare for it, whether we choose to champion it or to fight it. I like watching from the sidelines.

DISCLAIMER: The information contained in this column is the expressed opinion of the author only.

EDITOR'S NOTE: Rick Braunig has a degree in Aerospace Engineering and Mechanics from the University of Minnesota. Upon graduation he accepted a commission in the United States Navy and flew both airplanes and helicopters on active duty for 10 years. Rick continued in the Navy Reserves for another 17 years working in aircraft survivability and battle damage assessment. He retired from the service in 2007 at the rank of Captain. In 1990, Rick took a position with the Minnesota Department of Transportation (MnDOT) Office of Aeronautics, where he flew a Bonanza and King Air, compiling more than 7,000 hours over his career. He was a part of the FAA safety team that presented pilot safety seminars throughout Minnesota for a number of years starting in the late '90s. Prior to his retirement from MnDOT in 2021, Rick was the manager of the Aviation Safety and Enforcement Section. In this role, he trained and supervised the team responsible for the inspection and licensing of airports, heliports, and seaplane bases in the state. Rick lives with his wife, Kelly, in Woodbury, Minnesota. ❑

FAA Reaches One Millionth Airspace Authorization For Drone Pilots

WASHINGTON, D.C. – The Federal Aviation Administration (FAA) has issued its millionth airspace authorization for drone pilots to use busy airspace safely. The Low Altitude Authorization and Notification Capability (LAANC) automates the process for drone pilots to quickly gain authorization and provides Air Traffic Controllers with awareness of where drones may be operating.

"This system has allowed drone pilots to gain timely access to busy airspace without sacrificing safety," said Teri L. Bristol, the chief operating officer of the FAA's Air Traffic Organization. "We are grateful to everyone who helped us reach this milestone safely."

Under Part 107 of the Federal Aviation Regulations, drone operators need to secure approval from the FAA to operate in any airspace controlled by an air traffic facility. Prior to LAANC, airspace authorizations were done manually, which could take drone pilots weeks to get approved. In 2017, the FAA recognized that the manual system delayed the agency's goal to support routine drone operations and launched LAANC as a prototype for automatic airspace approvals.

Since becoming an official program in 2018, LAANC has provided an automated system for drone pilots – both commercial pilots and recreational pilots – requesting to fly below 400 feet in controlled airspace. Drone pilots can request airspace authorizations through any of the FAA-approved LAANC Service Suppliers up to 90 days before they plan to fly. The system now covers 542 air traffic control facilities serving approximately 735 airports. LAANC also allows the FAA to provide drone pilots with information and guidance on where they can and cannot fly a drone.

In 2021, the LAANC capability expanded to provide night authorizations to Part 107 Remote Pilots. Drone pilots can also request airspace authorizations using the FAA DroneZone, including for areas not covered by LAANC or when the operator holds a Part 107 waiver.

For additional information on LAANC, visit the FAA website. For general inquiries on these new regulations and other UAS inquiries, call **844-FLY-MY-UA** or email the FAA.❑

EAA AirVenture Oshkosh 2022 To Celebrate 75th Anniversary of U.S. Air Force

The U.S. Air Force F-22 Raptor has not yet been confirmed to appear at EAA AirVenture Oshkosh 2022, but regardless, the USAF and other services will have an arsenal of aircraft on display and flying. *USAF Photo*

EAA AVIATION CENTER, OSHKOSH, WIS. – The 75th anniversary of the U.S. Air Force will be one of the highlights of EAA AirVenture Oshkosh 2022, the 69th edition of the Experimental Aircraft Association's annual fly-in convention, July 25-31, at Wittman Regional Airport in Oshkosh.

"At Oshkosh in 2022, we aim to showcase the memorable history of the Air Force, from its initial post-World War II era to the impressive personnel, aircraft, and technology of today," said Rick Larsen, EAA's vice president of communities and member programming, who coordinates AirVenture features and attractions. "The Air Force's presence at AirVenture also helps spark inspiration among today's youth toward the innovations and possibilities available to them through aviation."

Specific activities and aircraft will be announced as they are finalized, but will include fly-bys, static displays, and presentations throughout AirVenture week, including evening programs at EAA's Theater in the Woods. Some of the aircraft will also fly as part of the daily air shows that are always favorites among AirVenture attendees.

The U.S. Air Force was created on September 18, 1947, as part of the National Security Act, which established a separate military air branch and put all military branches under a new Department of Defense. It recognized the importance of military air operations and separated it from the former Army Air Forces, while naval aviation operations remained separate.

U.S. military air operations date back to the Civil War when balloons were first used as reconnaissance platforms. In the early 1900s, the Army's Signal Corps was tasked with "all matters pertaining to military ballooning, air machines and all kindred subjects." The first aero squadron, as it was then known, became active in 1913 and saw its first combat duty in 1916.

Today, the Air Force has more than 325,000 personnel and more than 5,000 aircraft. The Air Force also has incorporated an increasing number of unmanned aerial systems as part of its inventory and continues development of new aerial technology to meet current operational demands (www.EAA.org/airventure). ❑

B-29 Doc Returning To EAA AirVenture Oshkosh

The B-29 "Doc" on takeoff at EAA AirVenture Oshkosh 2019.
EAA Photo by Michael Kutz..

EAA AVIATION CENTER, OSHKOSH, WIS. – "Doc," one of only two airworthy Boeing B-29s in the world, will be returning to EAA AirVenture Oshkosh, July 25-31, at Wittman Regional Airport in Oshkosh, Wisconsin, to help celebrate the 75th anniversary of the U.S. Air Force. This will be the 69th edition of the Experimental Aircraft Association fly-in convention.

AirVenture will feature aircraft from throughout the history of the Air Force, from its beginning with the Army Air Forces in 1947, to today's modern military aircraft.

"The rarity and the historical significance of the B-29 always make it a popular sight at Oshkosh," said Rick Larsen, EAA's vice president of communities and member programs, who coordinates AirVenture features and attractions. "Being able to see Doc both on the ground and in the air during AirVenture week will be a big addition to our commemoration of the U.S. Air Force's 75th anniversary this summer."

Doc was rescued from the Mojave Desert in 1987 and was meticulously restored over a 30-year period. It made its first air show appearances in 2017, including a legendary flight at Oshkosh that year with the Commemorative Air Force's B-29 "FIFI," marking the first time two B-29s had flown together in formation in approximately 60 years.

EAA AirVenture Oshkosh is "The World's Greatest Aviation Celebration" and EAA's membership convention. Additional information, including advance ticket and camping purchase, is available at **www.EAA.org/airventure**. For more information on EAA and its programs, call **800-JOIN-EAA** (**800-564-6322**) or visit **www.EAA.org**. Immediate news is available at **www.twitter.com/EAA**. ❑

50th Anniversary Reunion For Van's RV Aircraft Highlights Homebuilt Aircraft Activities At EAA AirVenture Oshkosh 2022

EAA AVIATION CENTER, OSHKOSH, Wis. – The 50th anniversary of Van's Aircraft RV series, which has become the world's most popular kit airplane, will be a major element of homebuilt aircraft activities at EAA AirVenture Oshkosh 2022, July 25-31 at Wittman Regional Airport in Oshkosh, Wis.

"While aircraft kits have existed for more than a century, it was 50 years ago that Richard VanGrunsven introduced a model that would move the homebuilt movement into an age where kit aircraft would become dominant," said Charlie Becker, EAA's director of chapters and homebuilt community manager.

"Today, more than 11,000 completed RV models are the direct descendants of that first RV-3 in 1972. We invite all of them to be present at Oshkosh as we celebrate a half-century of success."

A number of special events are planned as part of the 50-year celebration. Those include:

- Special Van's RV parking areas in the AirVenture homebuilt aircraft area.
- Multiple forums and workshops focused on RV aircraft throughout the week.
- RV aircraft flying during the AirVenture air shows.
- A July 25 evening program at Theater in the Woods with Richard VanGrunsven, highlighting the history of the company that began as a backyard shop in Oregon.

VanGrunsven began Van's Aircraft with a clean design, then selling plans and a few parts he manufactured himself for those aircraft. Soon the company began manufacturing complete airplane kits and introducing new models that after 50 years now include the latest design, the RV-14. More than 400 kits each year are shipped to builders around the world from the Van's factory in Aurora, Oregon.

Specific details on all AirVenture activities during the 50-year anniversary will be announced as they are finalized. Van's RV aircraft owners are encouraged to pre-register for the designated aircraft parking area at **EAA.org/AircraftAnniversaries**. ❑

NBAA's New Owner Pilot Association Coalition: A Force Multiplier For Aviation Everywhere

WASHINGTON, DC – The National Business Aviation Association (NBAA) announced Feb. 15, 2022, the launch of a new NBAA Owner Pilot Association Coalition (NBAA OPAC), which will bring together leaders of business aircraft owner-pilot organizations in a collaborative effort to tackle top concerns for business aviators and explore opportunities to grow the owner operator community.

"NBAA is about serving all entrepreneurs and companies using an aircraft for business, including owner pilots," said Andrew Broom, NBAA senior vice president of strategy, marketing and innovation. "This new, grassroots coalition will connect the best thinking to concrete action to address owner-operators' unique challenges, and also optimize the many ways aviation can support their business needs."

Broom noted that a starter group of representatives from several owner-pilot groups are advising the association, including leaders from Cirrus Vision Pilots and Owners, Citation Jet Pilots Association (CJP), Embraer Jet Operators Association (EJOA), Malibu M-Class Owner and Pilot Association, and TBM Owner Pilot Association (TBMOPA). He added that the coalition intends to quickly focus on a list of initial priorities to drive its work, including:

- New ideas for further enhancing operator safety.
- Innovative ways to address insurance coverage and costs.
- Initiatives to drive owner-pilot associations' member acquisition and retention.
- Redoubling NBAA's focus on the value of its events for owner-operators.

"The needs of owner-operators are continually evolving, and the formation of this coalition is an important step in bringing us together to address mutually shared challenges," said TBMOPA Executive Director Misty Stanistreet. "NBAA's coalition will leverage the association's proven ability to harness the collective expertise that will benefit all owner-aviators."

CJP CEO Trent Corcia agreed, adding: "Owner-pilot associations create tremendous value for their members, and by coming together under this coalition tent, we'll create a force multiplier that can address changing needs and create opportunities in a way that hasn't been possible until now." ❑

Reno Air Racing Association Welcomes New Flight Operations Team

RENO, NEV. – The Reno Air Racing Association (RARA) has announced an all-new Flight Operations Team. The organization welcomes Owen Ashurst as air boss, Bill Beaton as mini boss, and Tim Fitzgerald as tower chief. The Flight Operations team oversees all aspects of flight at the STIHL National Championship Air Races.

In October of 2021, former Director of Flight Operations, Tony "Bear" Grady, submitted his resignation to pursue 2022 political interests and the RARA Board quickly went to work mobilizing a Selection Committee which consisted of Board members Sue Gardner, Terry Matter and Todd Donahue.

"It was no small task taking over as Director of Flight Operations, particularly following the cancellation of our 2020 event and other challenges due to COVID, but he did so with determination and a steady hand to help us conduct a very successful event in 2021. We thank Bear for his service and wish him great success in this new chapter of his life," said Tony Logoteta, RARA COO. "The selection committee conducted an extensive interview and evaluation process with potential candidates, and we feel they've assembled a fantastic team."

In conjunction with the search, committee members also assessed and updated the Flight Operations Team structure. The new organizational structure has a clearer naming convention, chain of command and a strategic back-up/succession plan.

"The selection committee interviewed several terrific candidates, and we believe we've found a team that is highly qualified with an extensive background and familiarity with the Reno Air Racing Association," said Sue Gardner, RARA Board Member.

Former performer boss, Owen Ashurst, is a longtime RARA volunteer. As air boss he will be responsible for all aviation-related operations including racing and the airshow.

With a love for aviation that was instilled in him from a very young age, Ashurst spent three years in the U.S. Army, stationed in South Korea and returned to pursue a degree in air traffic control. While he spent 30 years in the corporate legal world, aviation was never far from his mind. He joined the Reno Air Races in 2003 as the pylon judge. He quickly rose to captain of home pylon and then deputy chief pylon judge. At the same time Ashurst also formed his own air boss company conducting airshows around the western U.S. It was with that experience that he was promoted to performer boss at Reno. Ashurst brings more than 20 years of experience to the STIHL National Championship Air Races and more than 10 years as an FAA-recognized air boss.

Bill Beaton, a self-described "serial volunteer" will serve as mini boss. Beaton is a passionate aviator who has been working with the Reno Air Racing Association since 2013, in addition to volunteering with the Calgary Flying Club, Experimental Aircraft Association, and Canadian Owners and

Pilots Association.

Forty-year air traffic control veteran, Tim Fitzgerald, joins the Flight Operations Team as tower chief. Fitzgerald began his path in aviation at Embry Riddle Aeronautical University but was led to air traffic control by a friend. He has since held numerous positions within the FAA working VFR towers, a combined tower and radar facility, as well as with military aircraft (A-10s) that were locally based, student pilots, and air carriers. In addition, he has worked radar approach and departure control. He spent much of his career at Chicago O'Hare tower, the busiest tower in the FAA system. Fitzgerald worked his way through several positions including controller, supervisor, plans and procedures specialist, training manager and operations manager.

Since his retirement in 2019 he has remained active in the aviation field serving as Air Boss at countless air shows. He continues to work temporary towers throughout the country including the Masters Golf Tournament, Tampa Super Bowl, AOPA conventions and the STIHL National Championship Air Races.

"The new Flight Operations Team brings more than 50 years of experience to Reno and almost a century of aviation-related experience in air traffic management, air boss expertise and aviation operations to the STIHL National Championship Air Races," said Fred Telling, CEO and Chairman of the Reno Air Racing Association.

The 58th STIHL National Championship Air Races will return to Reno, Nevada, Sept. 14-18, 2022. More information about volunteering, donating, attending, scholarship information and more can be found at **www.airrace.org**. ❑

CubCrafters Raises Funds For Refugee Relief

YAKIMA, WASHINGTON (March 9, 2022) – CubCrafters is reaching out to their friends in the aviation and backcountry flying communities to help provide assistance to refugees from Ukraine that are taking shelter in Poland. We've all seen the horrifying and heart-wrenching images of the war that has come to Ukraine, and with much of the civilian population now fleeing the country to escape the brutality of the conflict, CubCrafters wants to help.

More than two million refugees have now left Ukraine, and that number continues to grow on a daily basis. The largest number of those fleeing the war zone are going to Poland. The Polish people and government have opened their country to their neighbors in Ukraine in an amazing way, and CubCrafters believes they are in a unique position to help, as their main European office has been based in Rzeszów, Poland since 2012, less than 100 km from the Ukrainian border and right in the middle of the current refugee crisis. The team at CubCrafters Europe, being located right there on the ground where so much of this is happening, knows and can ensure in real time that any funds raised will go to meet the most necessary and urgent humanitarian needs for these refugees.

For those who want to help, funds can be donated at the following link: **https://www.gofundme.com/f/cubcrafters-ukraine-refugee-relief**

"The generosity in the aviation community for a good cause is always impressive," says Brad Damm, CubCrafters Vice President. "We had barely started this effort – just put it out on our Facebook page – and we quickly received over $10,000. We've set a goal of raising $100,000 for refugee relief, and I think we will make that amount or even more. I'm challenging my friends to just donate the value of a tank of fuel for their airplane. It's something we can each feel great about doing."

100% of the funds raised as part of this effort will be used to help feed, shelter, clothe, support, and otherwise care for Ukrainian refugees, the majority of whom are women and children.

Poland has a vibrant grassroots aviation and backcountry flying community; the people are great and it's one of the friendlier countries in Europe to general aviation.

Founded in 1980 by Jim Richmond, CubCrafters designs and manufactures Experimental, LSA, and Part 23 Certified aircraft. The Carbon Cub family of aircraft redefined expectations for backcountry adventure aviation with its light weight, powerful engines, and breathtaking performance. The company's flagship XCub aircraft is offered in both nosewheel and tailwheel configurations, and substantially expands the mission profile of sport utility aircraft with higher speed, longer range, and larger payload.

For more information contact CubCrafters at **509.248.9491** (**https://cubcrafters.com/**). ❑

EAA Awards "James Ray Scholarship" To Wisconsin Teenager

WATERTOWN, WIS. – Micah West, 18, of Oconomowoc, Wis., was awarded a "James C. Ray Aviation Scholarship" in the amount of $6,000.00 following a stringent vetting process. Micah was nominated by EAA Chapter 320 of Watertown, Wisconsin.

The James C. Ray Aviation Scholarship is awarded to qualifying youth ages 16-19 who are seeking their Private Pilot Certificate. Nominations are solicited from EAA Chapters nationwide. Once awarded, the scholarship money is managed by the local EAA Chapter.

In a letter to EAA Chapter 320 President, Eric Wegner, EAA Ray Aviation Scholarship Administrator Chris Gaugert wrote: "Due to your chapter's dedication to EAA, youth engagement, overall activities, and chapter health, and the wonderful application you submitted, EAA and the Ray Aviation Scholarship Review Committee are excited to have your chapter onboard this year. Congratulations to Chapter 320 for all their efforts in positioning themselves to be awarded this scholarship money!'

Micah West, 18, of Oconomowoc, Wis., was awarded a "James C. Ray Aviation Scholarship" in the amount of $6,000, thanks to the Ray Foundation and members of EAA Chapter 320 of Watertown, Wisconsin, who nominated him. Micah is seen here following his Private Pilot Checkride with the Cessna 172 he rented at Wisconsin Aviation.

Micah West went on to successfully earn his Private Pilot Certificate on July 10, 2021. Since Micah had already soloed and finished the written examination, he received a $6,000 scholarship, as compared with the customary $10,000 he would have received had he not soloed before applying for the scholarship.

The scholarship gave Micah the boost needed to propel him into a career in aviation. Starting in the fall of 2022, Micah will be attending Lewis University in Romeoville, Illinois, within the College of Aviation, Science & Technology.

Micah credits his success to the support and encouragement he received from members of EAA Chapter 320, and to his flight instructor, Charles Allen, at Wisconsin Aviation in Watertown.

"Micah is a great young man!" said Wegner. "We could not have asked for a better scholarship recipient or ambassador for the program. Micah is the kid you want your kid to be like. He's soft spoken, polite, and humble, and always has a smile on his face, and he's super smart. His flight instructor said that Micah was an absolute natural in the cockpit. He would describe a concept to Micah, or show him a maneuver, and he immediately understood it or nailed the maneuver. He was an absolute joy to teach and work with."

There's an interesting backstory here as well, which makes awarding the scholarship to Micah West even more special.

Micah's father, Adam, switched careers to become a missionary pilot in Africa. Adam also took flying lessons at Wisconsin Aviation, and Micah remembers going to the airport as a youngster to watch him fly. Unfortunately, Adam was killed in an airplane accident while doing his last bush/mountain flying certification flight with the missionary program. Micah was only 6 years old at the time.

Much to his mother's dismay, Micah has always wanted to be a pilot, just like his dad, so he joined EAA and started attending chapter meetings.

But prior to getting his driver's license, Micah would have his mom, Carrie, drive him to the meetings, and over time, she started to enjoy going herself and got involved. She is now the chapter's scholarship administrator, and its events coordinator. "I could not ask for a better person to be on our leadership team," said Wegner.

When Micah got his Private Pilot Certificate, the first person he took flying was his mom.

Micah started working at Wisconsin Aviation as a line technician in June 2020, just like his dad did, to help pay for flight training.

"Everyone on the field loves Micah, and you know if you ask him to do something, it will be done correctly, promptly, and with a smile," added Wegner. "Wisconsin Aviation

(L/R) Micah West with his flight instructor, Dr. Charles Allen of Wisconsin Aviation, immediately after Micah soloed for the first time.

President Jeff Baum says he wished he had 10 more young adults like Micah on his staff!"

The EAA Ray Aviation Scholarship Fund is a scholarship program that is funded by the Ray Foundation, managed by EAA, and administered through the EAA Chapter network. Through the generous support of the Ray Foundation, EAA provides up to $10,000 to deserving youth to cover their flight training expenses, totaling $1,550,000 annually. In addition to the scholarship, recipients receive a Lightspeed Zulu 3 headset once they pass the FAA Private Pilot written exam.

The Ray Foundation was founded by James C. and Joan L. Ray of Naples, Fla. James Ray was born in San Francisco, California on January 1, 1923, with the spirit of a true entrepreneur. As a youngster, he was never idle, and had countless part-time jobs, selling magazines, and delivering groceries and laundry. He was also an Eagle Scout, and upon graduation from high school, he became a steelworker.

Ray's dedication to aviation began shortly after the December 7, 1941, attack on Pearl Harbor which he witnessed firsthand as a civilian steelworker. Following the attack, he enlisted in the Army Air Corps and was involved in the D-Day invasion as a B-17 command pilot with the 8th Air Force. Post war, he served in the Air National Guard, and was very involved in general aviation.

Also following the war, Ray married the love of his life, Joan L. Paine, raised two children, and began a very successful business career. Working in venture capital investments, he became a seed investor and advisor to over 300 startup technology companies.

Ray firmly believed in the life skills, discipline, character, and confidence taught throughout the flight training journey. In keeping with his spirit, the Ray Foundation seeks to encourage the development of human potential through supporting programs that develop life skills, such as self-discipline, self-confidence, and self-reliance on the part of the grant recipients. The foundation has focused on the development of strategies and programs that address the involvement and education of young adults in aviation and aerospace.

The Ray Foundation was first involved in veterinary research in the 1960s. In later years, he focused much of his philanthropy on aviation, supporting the John D. Odegard School of Aerospace Sciences at the University of North Dakota; EAA's Air Academy in Oshkosh, Wis.; Aircraft Owners and Pilots Association's youth aviation and pilot safety initiatives; and Sun 'n Fun Fly-In's youth aviation education programs. Ray was also instrumental in funding the construction of Central Florida Aerospace Academy in Lakeland, Florida.

Ray died on April 1, 2017, at the age of 94 following a short illness. He was preceded in death by his wife, Joan, in 1986; son, Jim, in 2005; and daughter, Joanie, in 2009.

Further information about the "James C. Ray Aviation Scholarship" can be found at **EAA.ORG/Rayscholarships** or by contacting your local EAA Chapter: **https://www.eaa.org/eaa/eaa-chapters/find-an-eaa-chapter**. ❑

CALENDAR

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APRIL 2022

5-10 **LAKELAND, FLA.** - Sun n Fun Aerospace Expo. flysnf.org/

6-8* **ROCHESTER, MINN.** - Minnesota Airports Conference at the Mayo Civic Center. For more information, please visit the conference web page or contact Katherine Stanley at sell0146@umn.edu or 612-626-1023.

23 **MINNEAPOLIS, MINN.** - 2022 Minnesota Aviation Hall of Fame at the InterContinental Minneapolis-St. Paul Airport Hotel, 5005 Glumack Dr. Minneapolis, MN 55450 at 612-725-0500. To register for the 2022 banquet or to make donations, email MAHOFBanquetReservations@gmail.com or call 952-906-2833 (www.mnaviationhalloffame.org).

MAY 2022

3-5 **SAN ANTONIO, TEXAS** - NBAA Maintenance Conference. nbaa.org/

7* **BREEZY POINT (8MN3), MINN.** - **7th Annual Breezy Point Aviation Day 10am-2pm**. Lunch & Drinks, Classic Car Show, Static Display - No Airshow or Aerobatics. **Pilots MUST call for permission 218-838-3434 and visit our website for video pilot briefing BEFORE landing www.breezypointairport.com. CTAF 122.9**

7* **REEDSBURG (C35), WIS.** - EAA Young Eagles Rally. Free Airplane Rides for youth ages 8-17. https://youngeaglesday.org?3086

15* **BRODHEAD (C37), WIS.** - Community Pancake Breakfast 7am-Noon. www.eaa431.org

20-21 **BUFFALO (KCFE), MINN.** - Great Minnesota Aviation Gathering 2022. www.mnpilots.org

21* **ROCHESTER (RST), MINN.** - AOPA Rusty Pilots Seminar, Rochester Int'l Airport GA Hangars, 7300 Helgerson Dr SW, 9am-Noon. For details email Rod Reicks at semfc.treasurer@gmail.com.

23 **EDEN PRAIRIE (FCM), MINN.** - Private Pilot/Instrument Ground School at Thunderbird Aviation, Inc. Call to register 952-941-1212. fly@thunderbirdaviation.com

JUNE 2022

4 **MILWAUKEE (KMWC), WIS.** - Flour Drop Contest 10am Lawrence J. Timmerman Airport. Timmermanairport.com 414-461-3222

12 **WILD ROSE (W23), WIS.** - Breakfast 7-11:30 am.

12* **MONTEVIDEO (MVE), MINN.** - EAA Chapter 688 Fly-In Breakfast at the Montevideo Airport. Breakfast served 8am-1pm, free breakfast for PICs. Free Young Eagle rides for ages 8-17. Ping pong ball drop for ages 0-10.

18* **FRIENDSHIP (63C), WIS.** - EAA Young Eagles Rally. Free Airplane Rides for youth ages 8-17. https://youngeaglesday.org?2878

19* **CANTON (1D2), MICH.** - EAA 113 Aviation Center Father's Day Pancake Breakfast 7-11am at Mettetal Airport, 8512 N. Lilley Road. president@eaa113.org

24-25* **WAUSAU (KAUW), WIS.** - Wings Over Wausau Airshow 4-10pm-Friday & 8am-10:pm Saturday. Featuring a professional airshow each night, with fireworks at dusk. Also featuring Chalkfest in Downtown Wausau! The event is free for those flying into the event! 715-297-9531 execdir@wausauevents.org

JULY 2022

10* **MIDDLETON (C29), WIS.** - EAA Chapter 93 Pancake Breakfast, Middleton Municipal Airport Morey Field, 7:30am-Noon. Contact Al Barger for more info 608-332-5989.

16-17* **DULUTH (DLH), MINN.** - Duluth Air & Aviation Expo featuring the U.S. Air Force Thunderbirds. duluthairshow.com

21-24 **BRODHEAD (C37), WIS.** - Hatz Fly-In and Pietenpol Reunion. www.eaa431.org

25-31 **OSHKOSH, WIS.** - AirVenture Oshkosh 2022 featuring the 75th Anniversary of the Air Force. Also the 50th Anniversary of Van's aircraft and the 30th Anniversary of EAA Young Eagles. www.eaa.org/airventure

AUGUST 2022

7 **LINO LAKES, MINN.** - Minnesota Seaplane Pilots Association Pig Roast at Surfside. mnseaplanes.com

8 **EDEN PRAIRIE (FCM), MINN.** - Private Pilot/Instrument Ground School at Thunderbird Aviation, Inc. Call to register 952-941-1212. fly@thunderbirdaviation.com

8-17 **ONTARIO, CANADA** - A flying fishing adventure to Miminiska Lodge (CPS5)
TRIP #1: (3-Night/2-Day Trip): August 8 - 11, 2022 - *BOOKED!*
TRIP #2: (3-Night/2-Day Trip): August 11 - 14, 2022 - *BOOKED!*
TRIP #3: (5-Night/4-Day Trip): August 8 - 13, 2022 - *BOOKED!*
TRIP #4: (3-Night/2-Day Trip): August 14- 17, 2022 - *Space Limited, But Still Available!*
Contact Krista Cheeseman At Wilderness North 1-888-465-3474

13* **NECEDAH (KDAF), WIS.** - EAA Young Eagles Rally, Necedah (KDAF), Wis. Free Airplane Rides for youth ages 8-17. youngeaglesday.org?2879

SEPTEMBER 2022

10 **MILWAUKEE (KMWC), WIS.** - Spot Landing Contest 10am Lawrence J. Timmerman Airport. Timmermanairport.com 414-461-3222

16-18 **BRAINERD, MINN.** - Minnesota Seaplane Pilots Association Safety Seminar at Madden's on Gull Lake. www.mnseaplanes.com

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